us-09-905-744b-6.rspt

```
November 13, 2003, 06:09:06 ; Search time 57 Seconds (vibbou alguments) 137.658 Million cell updates/sec
                                                                                                                     US-09-905-7448-6
1 MATSWGTVFFMLVVSCVCSA......ETGWALGATFHLLQSLGISH 428
                                                                                                                                                                                                                                830525
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                       830525 seqs, 258052604 residues
                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match O%
Maximum Match 100%
Lieting fixst 45 summaries
                                              OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                              BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                       Title:
Perfect score:
                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                         Searched:
                                                                                                                                                Sequence:
                                                                          Run on:
```

Pred. No. is the number of results predicted by chance to have a cover greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

					OBTORNATIO	
Result No.	Score	% Query Match	* Query Match Length DB	DB	QI	Description
	2236	99.4	428	4	Q96RX0	O96rx0 homo sapien
8	21.04	93.5	407	4	QBWUB3	O8wub3 homo sapien
e	1990.5	88.5	427	1,7	Q8CD29	Oscd29 mus musculu
4	1984.5	88,2	427	7	Q88R23	OSbr23 mus musculu
'n	966	44.3	483	4	OSTAS7	OStas7 homo sapien
9	966	44.3	503	4	O8N3H3	OSn3h3 homo sapien
7	696.5	31.0	461	s	Õ76268	076268 drosophila
00	696.5	31.0	464	'n	810060	O9vqi8 drosophila
6	616.5	27.4	479	s	Q9XU84	O9xu84 caenorhabdi
10	593	26.4	278	1,1	Q8CHZ3	Oschz3 mus musculu
ıτ	538.5	23.9	929	m	Q90T35	O9ut35 schizosacch
12	518.5	23.0	489	10	08H7L6	OSh716 oryza sativ
13	515.5	22.9	599	m	овтсне	Ostah6 candida alb
14	511	22.7	522	m	Q9HEM6	O9hem6 kluyveromyc
15	507.5	22.6	455	30	O9SPM6	Ogspm6 medicago sa
16	503.5	22.4	467	70	Q9SPM7	Q9spm7 dolichos bi

17	498	22.1	462	10	Q9XFC9	09×t09		
13	491.5	21.8	456	9	O9SPM8	8wds60	lotus japon	
13	489	21.7	455	9	Q9FEA6	O9fea6	pisum sativ	
20	489	21.7	472	10	Q8L704	081704		
27	488	21.7	463	10	O9FVC3	Q9fvc3		
22	488	21.7	472	10	09SPM5	Q98pm5		
23	486	21.6	455	ខ្ព	OBGTB1	OBgtb1		
24	485	21.6	472	10	Q9M7B3	Q9m7b3		
25	484	21.5	471	10	Q9SQG2	Q9sdg2		
56	481	21.4	447	10	O9SLV4	0981v4		
27	475	21.1	468	9	Q9FVC2	Q9£vc2	glycine so)	
58	473	21.0	467	10	OBRVT6	Qarvee	pisum sativ	
59	472	23.0	407	10	Q9AVN8	Q9avn8	pisum sativ	
30	472	21.0	455	9	QBRVUO		pisum sativ	
31	465	20.7	447	10	Q9FUI1	-	pisum sativ	
32	464.5	20.6	558	m	Qergge	Q81998 8	aspergillus	
33	462	20.5	466	10	Q9AU15	S		
34	449	20.0	455	30	Q8RVT9	Q8rvt9	pisum	
35	443	19.7	473	0	QBRVTB	Q82VE8		
36	436.5	19.4	556	m	Q9C2M0	Q9c2m0 1	neurospora	
37	435.5	19.4	271		Q8IPZ6	Osipze o		
38	432.5	19.3	555	0	Q94EZ2	Q94ez2		
39	429.5	19.1	555	10	080612	080612		
40	424.5	18.9	224	11	QBCDB6	QBcdb6		
41	397	17.6	483	10	Q9X162	O9xi62		
42	392	17.4	493	13	99X06Ö	99×06Ö	gallus gall	
43	385	17.1	690	S	Q9BHVS	Sydde0		
44	370	16.4	539	11	Q8CDV7	08cdv7	mus musculu	
45	367	16.3	510	7	092106	092196	mus musculu	
					*			
					ALIGNMENTS			
ESULT 1								

					0	09	120	180
ALIGNMENTS	SEAT 1 SEATO SEATO SEATO SOSTO O-SEATO O1-DEC-2001 (TEMBLE-1.19,	TO 11-MAX-2002 (TEMBRIAN). 20, Last annotation update) B Popp brock-concogers protein. Homo septems (Hama). CO Elastrotes Heataca (Dordate; Cremiata; Vertebrate; Buteleostomi; CO Sharayotes, Medacas (Dordate; Cremiata; Vertebrate; Buteleostomi; Co Sharayotes, Potcheria; Primates; Cararthini; Mominidae; Monco. Namaniata : Potcheria; Primates; Cararthini; Mominidae; Monco.	0242-002	1365/2; AAK82950.1; ; IPROO407; GDA1_CF 01150; GDA1_CD39; 1. 428 AA; 47431 MK	Deer Natur Quer Natur Matches 426; Conservative 0; Mismatches 2; Indels 0; Gaps	Oy 1 MATSWOTVERM.VEVCGAVSHRNQTWEEGIFEASNCPINVSASTIGGINEDAGSTGT  DATE:	OV 61 RIHVYTEVOKAGOLFILGGEVERSKEGLSREVORGAGAFTVORGAGAFTVOGLEVAKOSIPREM  61 RIHVYTEVOKAAGOLFILGGEVTDSVKEGLSREVOQERGOAETVOGLLEVAKOSIPREM	Qy 121 KKTPUVLKATAGLRLLPEHKAKALLFEUVEIFRKSPFLVPKGSUSIMDGSDEGILANVTV 180

```
301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 RIHVYTFVOKMPGOLPILEGEVFDSVKPGLSAFVDOPKOGAETVOGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60 RIHVYTFVQKTAGQLPFLEGEIFDSVKPGLSAFVDQPKQGAETVQELLEVAKDSIPRSHW 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 KKTPVVLKATAGLRILPEHKAKALLFEVKEIFRKSPFLVPKGSVSINDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180 NFLTGQLHGRCQETVGTLDLGGASTQITFLPQFEKTLEKTPRGYLTSFEMFNSTFKLYTH 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 BPCYAEVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVOTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 EVCDNLENFISGSPELCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGAIFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360 EVCDNLGSFSSGSPFLCMDLTYITALLKDGFGFADGTLLQLTKKVNNIETGWALGATFHL 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MATSWGAV-FMLIIACVGSTVFYREQQIWFEGVFLSSMCPINVSAGTFYGIMFDAGSTGT 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-CTSTS-(45.7 TISPET-Gestis).

WINDING-2735-(63). PubMed-1246(681).

The FANTOM CORROCTION.

The PANTOM CORROCTION.

THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240 SYLGFGLKAARLATLGALEAKGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGMGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota, Metazos, Chordata, Craniata, Vertebrata, Buteleostomi, Mommalia, Butheria, Rodentia, Sciurognathi, Muridae, Musinae, Mus
NCBL_TRAID=10090)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 11; Length 427;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25; Indels
                                                  OGCD30. (TERMBLEE, 23, Created)
01-WAR-2003 (TERMBLEE, 23, Last seguence update)
01-WAR-2003 (TERMBLEE, 23, Last sannoteation update)
Ectonucleoside_triphosphate diphosphohydrolase 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.1%; Pred. No. 6.5e-164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        427 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88.1%; Prec. ....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2003 (TrEMBLrel. 23, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 88.18
Matches 376; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421 LQSLGIS 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420 LÖSLGIT 426
                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8BE23
                                                                                                                                                                                                                                             08CD29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
                                                                                                                                                                                      RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8BR23
                                                                                                                                                                                                               08CD29
                                                       à
                                                                                                     a
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <del>റ</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 RIHVYTFVQXMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 SYLGFGLKAARLATLGALETBGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 EPCYAEVLRVVRGKIHQPBEVQRGSPYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                              300
                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                             301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFBRKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSINDGSDEGILAMVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                      241 SYLGFGLKAARLATLGALETECTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                 361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIPLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                   241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                          361 BVCDNLENFTSGSFFLCMDLSYTTALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MAJSWCTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                           301 EPCYABULRUVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYBKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapirane (Human)
Mammalia, Eutheria, Primates, Catarxhini, Hominidae, Homo.
NCBT TaxIn-5608.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2002 (TrENBLrel. 20, Created)
01-MAR-2002 (TrENBLrel. 20, Last sequence update)
01-UN-2002 (TrENBLrel. 21, Last annotation update)
SAmilar to ectonnoleoside triphosphate diphosphohydrolase 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.5%; Score 2104; DB 4; Length 407; 100.0%; Pred. No. 8.7e-174; cive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                407 AA, 45336 MM, D92A5F7DC9EC9ESE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL, BC020966; AM20966.1; --
InterPro, IPR000407; GDA! CD39 NTPase.
Pfam; PF01150; GDA! CD39; 1.
Hydrolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DBWUB3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8WUB3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O8WUB3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                ò
                                                                                                                                   유
                                                                                                                                                                                      ò
                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

m

Page

```
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 203;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                      SEQUENCE
                                                                                                                                                                     Query Match
                                                                                                                                                                                                 Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QBN3H3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OBN3H3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SO THE REAL PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
255558
                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                   윱
                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 NPLTGOLHGHRQETVGTLDLGGASTQITFLPQFEKTLRQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240 SYLGFGLKAARLATLGALEAKGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQBGEMGF 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDWIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLBVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60 RIHVYTFVQKTAGQLPFLEGEIFDSVKPGLSAFVDQPKQGABTVQELLEVAKDSIPRSHW 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 KKTPVVLKATAGLRLIPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180 NFLTGOLHGRGQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTFKLYTH 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEARWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360 EVCDNIGSFSSGSPFLCMDITYITALLKDGFGFADGTLLQLTKKVNNIETGWALGATPHL 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MATSWGAV-FWLITACVGSTVFYREQQTWFEGVFLSSMCPINVSAGTFYGIMFDAGSTGT 59
                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                          Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             88.2%; Score 1984.5; DB 11; Length 427; 87.8%; Pred. No. 2.2e-163; ive 24; Mismatches 27; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-07N-2002 (TrENBLrel. 21, Creaced)
01-07N-2002 (TrENBLrel. 21, Lass Sequence update)
01-07T-2002 (TrENBLrel. 22, Last annocation update)
5ctonucleoside triphosphate diphosphohydrolase 6 (Putative
01-MAR-2003 (TrENBirel. 23, Last sequence update)
01-MAR-2003 (TrENBirel. 21, Last annotation update)
Coronucleoside triphosphate diphosphohydrolase 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT:
                                                                                                                                                                                                 SEQUENCE FROM N.A.
TYRAIN-E7SPBL/60; TISSUE-Brain;
MEDLINE-22354668; PubMed=1246685;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87,8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 375; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421 LQSLGIS 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420 LOSEGIT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                          Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SECUENCE FROM N.A.
                                                                                                                                         NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Placenta,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unction)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OBTAS7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OBTAS7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SORERTRESSERVENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

```
89 PLGTAADGHEVFYGIMFDAGSTGTRVHVFQFT-RPPRETPTLTHETFKALKPGLSAYADD 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        157 PLVPKGSVSIMPGSDEGILAWVTVNPLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 208 PLVGDDCVSIMNGTDEGVSAWITINFLIGGEKTPGGSSVGMLDLGGGSTQIAFLPRVBGT 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217 LEQTPRGYLTSFEMPNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTFRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               268 LOASPPGYLTALRMFNRTYKLYSYSYLGLGLMSARLAIJGGVEGQPAKDGKELVSPCLSP 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276 WIEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYDR 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328 SFKGEWEHAEVTYRVSGQKAAASLHELCAARVSEVLQNRVHRTEEVKHVDFYAFSYYYDL 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336 AVDTDMIDYEKGGILKVEDFERKAREVCDNLENFTSGSPFLCMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                109 PLGTAADGHEVPYGIMFDAGSTGTRVHVFQFT-RPPRETPTLTHETFRALKPGLSAYADD 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97 PKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40 PINVSA---STLYGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQ 96
                                                                                                                                                                                                                                                                                                                                                                                                    40 PINVSA---STLYGIMPDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDO 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Gaps
                                                                                                                                                                                                                                                                                                                                        6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44.3%; Score 996; DB 4; Length 503; 52.2%; Pred. No. 1.4e-77; tive 57; Nismatches 123; Indels
                                                                                                                                                                                                                                                           tch 44.3*; Score 996; DB 4; Length 483; al Similarity 52.2*; Fred, No. 1.3e-7; Conservative 57; Mismatches 123; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-Amygdala; Wikner U., Mewea H.W., Weil B., Wiemann S., Ansorge W., Wikner U., Mewea H.W., Weil B., Wiemann S., Submitted (UUL-2002) to the BWBL/GenBark/DDBJ databases. EWBL, Al634158; CA038864.1.
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases. BNBL; BCOSS9601, AMB-25960.1, 1. TRRED-ED; IRRNOAD7; GDA_CRS-SE0.1, TRRED-ED; IRRNOAD7; GDA_CRS-NTPARS. Hydrolass.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    503 AA; 54763 MW; 163933F9139D8D9F CRC64;
                                                                                                                                                                                         483 AA; 53119 MW; A8E0E5035BCDCE8F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-0CT'2002 (TERME, 22, Created)
01-0CT'-2002 (TERME, 22, Last sequence update)
01-0RT-2003 (TERME, 22, Last sequence update)
Mypothetical protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  396 STVLQLTKKVNNIETGWALGATFHLLQSL 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              447 SKVLKLTRKIDNVETSWALGAIFHYIDSL 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Interpro; IPRODO407; GDAL CD39 NTPase.
Pfam; PF01150; GDAL CD39; 2.
```

```
Oguçis,

Ol-MAY-2000 (TrEMBLrel. 13, Created)

Ol-MAY-2000 (TrEMBLrel. 13, Last sequence update)

Ol-UUN-2001 (TrEMBLrel. 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            464 AA.
                                                                                                                                                                                                    MEDLINE=98341119; PubMed=9676430;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AF041048; AAC39133.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AY061134; AAL28682.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 156; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            810760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         297018
È
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RAN MARION NELSOLYSON FUNKMENT OF THE CASE AND ADDRESS OF THE CASE ADDRESS OF THE CASE
                      288 LQASPPGYLTALRMFNRTYKLYSYSYLGLGLMSARLAILGGVEGQPAKDGKELVSPCLSP 347
                                                                                                                                                                                                                                                                                                                                                 408 AAGVGLIDAEKGGSLVVGDFEIAAKYVCRTLETQPQSSPFSCMDLTYVSLLLQE-FGFPR 466
97 PKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP 156
                                                                             157 FLVPKGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT 216
                                                                                                                   228 FLVGDDCVSIMNGTDEGVSAWITINPLIGSLKTPGGSSVGMLDLGGGSTQIAFLPRVBGT 287
                                                                                                                                                          217 LEGIPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GIDGHTFRSACLPR 275
                                                                                                                                                                                                                                       216 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYVOR 335
                                                                                                                                                                                                                                                                              348 SFKGEWEHAEVTYRVSGQKAAASLHELCAARVSEVLONRVHRTEEVKHVDFYAFSYYDL 407
                                                                                                                                                                                                                                                                                                                    336 AVDIDMIDYEKGGILKVEDFERKAREVCDNLENFTSGSPFLCMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Drosophila melanogaster (Fruit fly).
Bixaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neopeka, Endopterygota, Diptera, Brachycera, Muscomorpha,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1998 (TrEMBLrel. 08, Created)
01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annocation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT; 461 AA.
                                                                                                                                                                                                                                                                                                                                                                                                     396 STVLQLTKKVNNIETGWALGATFHLLQSL 424
                                                                                                                                                                                                                                                                                                                                                                                                                           467 SKVLKLTRKIDNVETSWALGAIFHYIDSL 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=20196006; PubMed=10731132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NTPASE protein (LD11641P).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=BERKELEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            076268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
076268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                             à
                                                                                                                                                                                                용
                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                           용
                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                ò
```

```
49 YGIMPDAGSIGTRIHVYTFVQRAPGQLPILEGEVPDSVKPGLSAFVDQPKQGAETVQGLL 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79 YAAIIDAGSTGSRVLAYKENRSFIDNKLVLYEELPKERKPGLSSFADNPAEGAHSIKLLL 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 EVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMD 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       169 GSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITF-----LPQFEKTLEQTP 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199 GTDEGIFSWFTVNFLLGRLSKTNQ--AAALDLGGGSTQVTFSPTDPDQVPVYDKYMHEV- 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               222 RGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETEG--TDGHTFRSACL-PRWLE 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26 ---VTSSKKIN----VFTHSYLGLGEMAARHAVF----THGYKKEDTVLESVCVNPIIAN 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     279 AEMIFGGUKYQYGGNQEGE----VGREPCYAEVLRUVRGKL----HQPEEVQRGSF 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            305 RIWIYGNVQYKVSGKENGKSSAEQPIVDFDAC----LELVKSKVMPLVKPKPFILKQHAV 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          327 YAFSYYURAVDTDMIDYEKGGILKVEDFERKAREVC--DNLENFTSGSFFLCMDLSYIT 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361 AAFSYYFERAIESGLVDPLAGGETTVEAYRKKAQEICAIPNDE.----QPFMCFDLJF1S 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chadwick 8.P., Friedhanf N. M.; Wirnithen of three new human members (CD914), Jaily and CD9141, the family identification of three new human member of the gent early from Drosophila melanogaster."; Genomics 50:357-367(1989).
Syieraba B. Trector C. Thorner R. Vonner E. Nann B. H. Wand X., Wallama Z. -Y. Hassamman D.A., Weinsteoch G.M., Weissenhach J., Williams B. M., Woodear T. Wollyby K. C., Wu D., Yang S., Yao O.A., Yao C. J., Yao R. P., Zaveri J. S., Zhan M., Zhang G., Zhao G., Zheng L., Zheng X. H., Zhong K. T., Zhou S. H., Zhang G., Zhao G., Zhao G., Zhao B. M., Where E. M., Rhain G.W., Vener J.C., Zhu S., Zhu X., Smith H.O., The genome sequence of Decopobilia melanogaster.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAINEackilory.

Straphten M., Broketesin P., Hong L., Aghayani A., Carlson J.,

Cange, M., Chaves C., Dorester, V., Ferfean D., Fries E., George R.,

Canger M., Chaves C., Porester, V., Ferfean A., Murgall C.J.,

Numoo J. Bealeb J., Parages V. Park S., Phonamonavong S., Wan K.,

Yu C., Lewis S. E., Rubin G. M., Celniker S.,

Submitted (Ort-2001) to the EMBL/Genbank/DoBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31.0%; Score 696.5; DB 5; Length 461; 39.1%; Pred. No. 1.1e-51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74; Mismatches 122; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FlyBase; FBgn0024947; NTPase.
Interpro; IRR00407; GDAL CD39_NTPase.
Pfam; PPOLISO; GDAL CD39_1.
SRQUBNCE 461 AA; 50845 MW; 27D00321F91A9DD1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       385 ALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHLLQS 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       416 TLLREGFGLNDGKKIKLYKKIDGHEISWALGCAYNVLTS 454
```

```
279 AEMIFGGUKYQYGGNQBGB------VGFEPCYAEULRUVRGKL-----HQPBEVQRGSF 326
                                                                                                                                                                                                    308 RTWTYGNVQYKVSGKENGKSSAEQPIVDPDAC----LELVKSKVMPLVKPKPFTLKQHAV 363
                                                                                                                                                                                                                                                                                                                                                                                       364 AAFSYYFERAIESGLVDPLAGGETTVEAYRKKAQEICAIPNDE----QPFMCFDLTFIS 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67 FVQK------MPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSH 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120 WKKTPVVLKATAGLRLLPEHKAKALLFEVKE-IFRKSPFLVPKGSVSIMDGSDEGILAWV 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    118 WEKTPITLKATAGLRLLPGDWADDILESVEERIFNSGFFAAFPDAVNVMPGSDEGVYSWF 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179 TVNFLTGQLH-----GHR---GETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFE 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178 TLNILLETLFTDEPTVGHKPAAHRSVAAFDLGGGSTQLTYWPNNEAVFSEHV-GYERDID 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        230 MFNSTYKLYTHSYLGFGLKAARLATLGALETEG--TDGHTFRSACLPRWLE-AEWIFGGV 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    237 FFGHIRLFTHSFLGNGLIAARLNIL-QLETDNEIESTHQLITSCMPEGYQLTEWEY-AL 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            287 KYQYGSNQEGEVGFEPCYAEVLRVVR-GKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYE 345
259 ---VTSSKKIN----VFTHSYLGLGLMAARHAVF----THGYKKEDTVLESVCVNPIIAN 307
                                                                                                                                                                                                                                                                                                                   327 YAFSYYYDRAVDIDMIDYEKGGILKVEDFERKAREVC--DNLENFISGSPFLCMDLSYIT 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 PPMLVVS--CVCSAVSHRNQQTWPEGIFLSSMCPINVSASTLYGIMFDAGSTGTRIHVYT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 PSILLISFPSILSVVTTKTQY-WCHGDGVLN----NQHTCRFFTIVIDAGSTGTRLHIYK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditís.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27.4%; Score 616.5; DB 5; Length 479; 34.3%; Pred. No. 1e-44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Genome sequence of the nematode C.elegans: A platform for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81; Mismatches 167; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BMB.; E93113; CAB0554411:
NOTHERPEY (MBMLO, TELBAY).
INDEEPEY INROQUATA AIRWHIGLE, SYNTH.
INDEEPEY INROQUATA (MBMLO) (MPABEL.
EARL, PEOLISC), GDAL, CD39, IL.
PROJETTE, PRODELS, AZMEN (MBMLO) (MBMLO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    385 ALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHLLQS 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-NOV-148R-2003 (TrEMBLrel. 3, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               investigating biology.";
Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 34.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KOSH10.4 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09XU84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SON DE RESERVANT DE SON DE SON DE SON DE SON DE SET TANDER DE SON DE SON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAMERON BY C. CALLINGER S. B. HOLF R. N. EVANE C. A. GOCANDO J. D. AMARREN NO. CALLINGER DEMONSTRATE S. HOLF R. N. EVANE C. B. B. A. MARREN NO. CALLINGER S. P. MARREN NO. CALLINGER S. P. MARREN NO. CALLINGER S. P. SCHEFFE S. P. MARREN S. C. CHAPPER S. P. MCTEAR D. S. P. WACTEAR D. R. AFRICAL S. C. CHAPPER S. P. MCTEAR D. S. MCTEAR D. S. C. CHAPPER S. P. MALLON C. R. MARINE D. S. MALLON C. R. MALLON C. M. 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49 YGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQFKQGAETVQGLL 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82 YAAIIDAGSTGSRVLAYKFNRSFIDNKLVLYEBLFKERKPGLSSFADNPAEGAHSIKLLL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109 EVAKDSIPRSHWKKTPVVLKATAGLRILPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMD 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         142 DEARAFIPKEHWSSTPLVLKATAGLRLLPASKABNILNAVRDLFAKSBFSVDMDAVEIMD 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             202 GIDEGIFSWFTVNFLLGRISKING -- AALDLGGGSTQVIFSPIDPDGVPVYDKYMHEV- 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169 GSDEGILAMVIVNFLTGQLHGHRQETVGTLDLGGASTQITF-----LPQFEKTLEQTP 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   222 RGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETEG--TDGHTFRSACL-PRWLE 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       47; Gaps
                                                                                             Drosophila melanogaster (Fruit fly).
Bukaryota, Meracoa, Arthropoda, Hewspoda, Insecta, Pterygota,
Neoptera, Endopterygola, Diptera, Erachycera, Muscomorpha,
Ephydroidea, Porosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 5; Length 464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       74; Mismatches 122; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31.0%; Score 696.5; DB 5, 39.1%; Pred. No. 1.2e-51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=20196006; PubMed=10731132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 156; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                          SECUENCE PROM N.A.
        NTPASE protein.
                                                                                                                                                                                                                                                                                                                           NCBI TaxID=7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-BERKELEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
```

ò S 엺

à

ð 윱

g

ò g à 

```
16;
                                                                                                                                                                                                                                                                                                                                                                                 49 YGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGBVFDSVKPGLSAFVDQPKQGAETVQGLL 108
                                                                                                                                                                                                                                                                                                                                                                                                              273 L-----PRWLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVR----GKLHQP 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          319 ---EBUQRGSFYAPSYYYDRAUDTDMIDYEKGGILKUEDFERKAREUC----- 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109 EVAKUSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKS-PFLVPKGSVSIM 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  168 DGSDEGILAWTVNFL/GQLHGH-RQFTVGTLDLGGASTQITFLPQFEKTLEQTPRG--- 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              252 EGŚWEGIYAWITINYLLGTLGGKATHSTVAVMDLGGASTQLVFEPRFASDGESLVDGDHK 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     224 YLTSFEMFNSTYKLYTHSYLGFGLKAARL-----ATLGALETEGTÜGHTFRSAC 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           369 IHIMASLTHPDSKSEASEVVFVGPSLAHLSLÓCRGIAEKALÝKDKNCPVRPCSFNGVHQP 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      429 KPTETFTDSPIYLISYFYDR-----MISLGMPSTFTIEDMKYLANSVCSGPTYWQDAFSL 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 364 -DNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHLL 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           484 TDALKELKE-EPEMCLDLNYNISLESVGYEIPNNROLHTAKKIDNKELGMCLGASLSML 541
                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oryza sativa (japonica cultivar-group).
Bikaryota, Vizidylantes, Streptophyta, Embryophyta, Tracheophyta;
Spermatophyta, Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae, Oryzaes, Oryza.
                                                                                                                                                                                                                                                                                      23.9%; Score 538.5; DB 3; Length 556;
34.4%; Pred. No. 7.7e-38;
tive 61; Mismatches 157; Indels 57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 23.0%; Score 518.5; DB 10; Length 409; Bert Local Similarity 34.0%; Prefect No. 3.46-36; Metches 143; Conservative 70; Mismatches 149; Indels 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wing R.A., Yu Y., Soderlund C., Kim H.-R., Rambo T., Saski C.,
Currie J., Collura K.;
                  Sanchez R., Franco A., Notario V., Gacto M., Cansado J., "Characterization of a guanosine diphosphatase gene from
                                                             Schizosaccharomyces pombe.";
Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
EMBL, ALG21741; CABS338 1;
EMBL, AR465240; AML69974.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Plice Genomic Sequence.";
Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
EMBL: ACL26222; AAN65004.1; ·
                                                                                                                                                CHRONE SPONDER STRONGER (18):
THREEPEN TROUGHOUT, COUNT COURSE.
PROSTITE, PROLICES OF COUNT COUNT COURSE.
PROSTITE, PROLICES OF COUNT COUNT COURSE.
PROSTITE, PROLICES OF COUNT COUNT COUNT COUNT COUNT COUNT COUNT COUNT CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             489 AA, 52799 MW; OBFGBF154488D38E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 23, Last annocation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             489 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                         144, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Putative apyrase.
OSJNBB0014II0.10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=39947;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28H7L6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q8H7L6
                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SORTHERNOCOCCOS
윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 YGIMPDAGSTGTRIHVFQPA-RPPGETPTLTHETFKALKPGLSAYADDVEKSAQGIQELL 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49 YGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGABTVQGLL 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109 EVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIPRKSPFLVPKGSVSIMD 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     133 NVAKQHIPYDFWKATPLVLKATAGLRLEPGEKAQKLLQKVKEVFKASPFLVGDDCVSIMN 192
                                                                 295 KF-WNINGSSSHSFESCYGTTKNFVESSEIMHLRELKGSPVYLFSYFFDRALNSGLVKGN 353
                                           346 KGGILKVEDFERKAREVC----DNLENFISGSPFLCMDLSYITALLKDGFRADSTVLQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-972h-;
Barrell B.G., Rajandream M.A., Quail M., Seegar K., Harris D.;
Submitted (OCT-1999) to the EMBL/Genbank/Dobbl databases.
[2]
                                                                                                                                                                                                                                                                                                                                     01-MGR-2003 (TrEMBLrel. 23, Created)
01-MGR-2003 (TrEMBLrel. 23, Jast sequence update)
01-MGR-2003 (TrEMBLrel. 23, Last annotation update)
5:milar to ecconcleoside triphosphate diphosphohydrolase 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26.4%; Score 593; DB 11; Length 278; 58.0%; Pred. No. 4.9e-43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0.-NW-2000 (TREMELRE). 13, Created)
10.-HW-2000 (TREMELRE). 13, Last sequence update)
10.-HWR-2000 (TREMELRE). 23, Last amouted on update)
Puttiving aganosime chiphospharase (Guanosime Alphospharase).
SRACBA: 08 (OR)-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative 31; Mismatches 49; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg R.;
Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  278 AA; 30130 MW; 75A92DD1AC76297F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Fungi, Ascomycota, Schizosaccharomycetes, Schizosaccharomycetales, Schizosaccharomycetales
                                                                                                                                                                                                                                                                                              278 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     556 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Schizosaccharomyces pombe (Fission yeast)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-C57BL/6J, TISSUE=Mammary gland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         229 EMFNSTYKLYTHSYLGFGLKAARLA 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; BC038126; AAH38126.1; -.
                                                                                                                                     402 TKKVNNIETGWALGATF 418
                                                                                                                                                                             414 AKKIKGMEVSWGQGLAF 430
                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Schizosaccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=4896;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hydrolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                   QBCHZ3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9UT35
                                                                                                                                                                                                                                                                                              Q8CHZ3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                              RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29UT35
                                                                                                                                                                                                                                                                           OSCHZ
```

å

à å ò ò g ò g

```
281 MDGKDEGVYAWVTANYLLGNIGGKEKLPTAAVFÖLGGGSTQIVFERDYK--VDEVPVDGE 338
                                        226 TS--PEMFNSTYKLYTHSYLGFGL----KAARLATLGALETEGTDGHTFR----- 269
                                                                                339 TKYHFTFGDNQYTLYQFSHLGYGLMQGRNKVNQLVLKNKLSELNLQKYTKKEVKGAKATV 398
                                                                                                                                                                   399 DVSNPCIPPGVVÅKDVQVELGEDEFYVVNMKGPSSKDSTVAGGSQCRYLAEKVLNKDAEC 458
                                                                                                                                                                                                           299 GFEPCYAEVLRVVRGKLHQPEEV----QRGSFYAFSYYYDRAVDTDMIDYEKGGILKVED 354
                                                                                                                                                                                                                                      355 FERKARBVC------DNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLT 402
                                                                                                                                                                                                                                                                                                                      49 YGIMFDAGSIGIRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLL 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97 YVVMIDAGSTGSRVHVYEF - OVCTOPPTLINETFEMIKPGLSSFDIDAVGAAKSLDPLL 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            109 EVAKDSIPRSHWKKTPVVLKATAGLRLDPEHKAKALLFEV-KEIFRKSPFLVPKG-SVSI 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   167 MDGSDEGILAWVTVNFLTGQL-HGHRQETVGTLDLGGASTQITFLPQF---EKTLEQTPR 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    215 MDGBEBÖUYAWVTANYLLGNIGAGSKLPTAAVFDLGGGSTQIVFBPSFPPNEKMVDGBHK 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223 GYLTSFEMFNSTYKLYTHSYLGFGLKAAR-----LATLGALETEGTDGHTFR--SA 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       275 -YELSPG--GHDYTLYQPSHLGYGLMQGRNKINTELVNVAISSGTITKGQTARTYELSSP 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       332 CLPPGTTAEGEKVKISDDE1YTVNFKGPKVPAGPQCRYLADKILNKDAKCNTPPCSF--- 388
                                                                                                                           270 ---SACLPRWLEAB-----NGEGEV 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               272 CLPRWLEAEW------IFGGVKYQYGG-----NQEGEVGFEPCYAEVL 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Omery Match 22.7%; Score 5il; DB 3; Length 522; Best Local Similarity 33.8%; Pred. No. 1.70-35; Matches 447; Conservative 59; Mismatches 149; Indels 80; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-MAIJ2;
LODEZ-AVIJ19012; PubWed-11425802;
LODEZ-AVIJ08 M.D., HOCHLLett.) D., Abeljon C., Hirschberg C.B.;
The UDRase activity of the Kluyveromyces lactis Golgi Gorace has a "The UDRase activity of the Kluyveromyces lactis Golgi Gorace has a mode in utaldine miclectifie sugar transport into Golgi vestcles.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kluyveromyces lactis (Yeast).
Bukaryota; Pungi, Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetelses; Saccharomycetaceae; Kluyveromyces.
YGEI_TAXID=28989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glycokology 11:141-422 (2001)

FREEL, AJ401304; CAC2135°C.1; -

TINGEPEOP, IPRODOGY, CBAL_CD39, NPPASE, .

FROATER, FROALSO, GDAL_CD39, 1.

PROATER, FROALSO, GDAL_CD39, 1.

SEGUENCE 522 AA; 65683 WR, RAPASE, 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01.MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2003 (TIEMBLrel. 23, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              522 AA.
                                                                                                                                                                                                                                                                                                                                                                              403 KKVNNIETGWALGATFHLL 421
                                                                                                                                                                                                                                                                                                                                                                                                         566 KTIDNNELGWCLGASLPLL 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Guanosine diphosphatase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O9HEM6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
Q9HEM6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                a
                                                                                                                           à
                                                                                                                                                                   셤
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49 YGIMPDAGSTGTRIHVYTFVQKWPGQLPILEGEVFDSVKPGLSAFVDQPKQSAETVQGLL 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 163 YVVMIDAGSTGSRVHVYERNTCV--KPPQLLSBEFEMLKPGLSSFDTDTVGAAKSLDPLL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 EVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKS-PF-LVPKGSVSI 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221 EVALKKVPKNKQSCTPVAVKATAGLRLLGETKSKAILDEVRSHLEKDYPFAVVSEDGISI 280
                          84 STRYAVIFDAGSSGSRVHVYCF----DGNLDLLPIGKEIELFKQKKFGLSAYAMDPQEAA 139
                                                                                      102 BTVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLPEHKAKALLPEVKEIFR-KSPFLVP 160
                                                                                                              161 KGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQT 220
                                                                                                                                                                                                 200 PEMVIVLDGSQEGAPQWVINYLLGNLGKPYSHTVGVVDLGGGSVQMAYAIS-EKDAGKA 258
                                                                                                                                                                                                                                                      221 P-----RGYLTSPEMFNSTYKLYTHSYLGFGLKAARLATLGALETEGTDGHTFRSACLP 274
                                                                                                                                                                                                                                                                              259 PPVAEGEDSYVKELLLKGTTYYLYVHSYLRYGLLAARAEILKAGE----GNDYRN-CML 312
                                                                                                                                                                                                                                                                                                                                      275 RWLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPE-------319
                                                                                                                                                                                                                                                                                                                                                                           313 EGHHGQYRYGDDIFEASGLSSG-ASYSKCRAVAVRAL--KVDEPACTHMKCTFGGVWNGG 369
                                                                                                                                                                                                                                                                                                                                                                                                                      320 -- BVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVE--DFERKARBVCD-NLENFTS--- 371
                                                                                                                                                                                                                                                                                                                                                                                                                                              372 ----GSPFLCMDLSYITALLKDGFGFADSTVLQLTKKV----NNIETGWALGATFHLLQ 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    428 DVSBENVPYLCMDLUYQYTLLVDGFGVDPYQDITLVKKVPYSNSFVEAMPLGSAIEVAS 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             167 MDGSDEGILAWVIVNFINGOLHG-HRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYL 225
   46 STLYGIMFDAGSTGTRIHVYTFVQXMPGQLPIL----EGEVPDSVKPGLSAFVDQPKQGA 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Herrero A.B.;

"The Golgi Gipsae of the fungal pathogen Candida albicans Affects morphogenesis, glycos/lation and call wall properties.";

BMB, AJ21721, GYOSS/BSTO, 1.

InterPro. IRROWAYD, GDA, CD39 MTPSAE.

Fram. PFPILSO, GDA, CD39 MTPSAE.

Fram. PFPILSO, GDA, CD39 MTPSAE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Fungi, Ascomycota, Saccharomycotina, Saccharomycetes, Saccharomycetales, mitosporic Saccharomycetales, Candida.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 3; Length 599;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22.9%; Score 515.5; DB 3; Length 93.6%; Pred. No. 8.5e-36;
tive 65; Mismatches 148; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 599 AA; 65952 MW; D5BC3A4F6E1B646A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      599 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE, PS01238; GDA1 CD39 NTPASE; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUN-2002 (TrEMBLrel. 21, Created)
- JUN-2002 (TrEMBLrel. 21, Last seque
01-MAR-2003 (TrEMBLrel. 23, Last annot
Guanosine diphosphatase (EC 3.6.1.42).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Candida albicans (Yeast).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 143; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=5476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          423 S 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              488 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hydrolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QUICHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q8TGH6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OBTCHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                           셤
                                                                                                                           ద
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                           셠
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                              S
S
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
      ò
                                                                                      ò
                                                                                                                                                                      à
                                                                                                                                                                                                                                                      à
```

```
385 LTDAKRPYVCMDLLYQHVLLVHGFGLGPRKEITVGEGIQYQNSVVEAAWPLGTAVEAISA 444
                                                                                                                                                                                                                                                                                                     Search completed: November 13, 2003, 06:19:43
                                                                                                                              424 L 424
                                                                                                                                                                                             445 L 445
                                                                                                                              ò
                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99 SLIPLLEBARDVVPEDLHPKTPLRLGATAGLRLLNGDAAEKILGATRNMFSNRSTLNVQR 158
                                                                                                                                                                                                                                           47 TLYGIMFDAGSTGTRIHVYTFVQKMPGQLPIL----EGEVFDSVKPGLSAFVDQPKQGAE 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   103 TVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLPEVKEIF-RKSPFLVPK 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   162 GSVSIMDGSDEGILAWVIVNFUTGQLHGHRQETVGTLDLGGASTQITFLPQPEKTLEQTP 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22 R-----GYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETEGTDGHTFRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 218 KVADGEDPYIKKLVLKGKQYDLYVHSYLRFGKBATRAQVLNA--TNGS----ANPCILP 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSF------ 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           271 GFNGTFTYSGVEYKAFSPSSGS-NFDDCKEIILKVL--KVNDPCPYPSCTFGGIMNGGGG 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327 -----YAFSYYYDRAVDTDMIDYEK-GGILKVEDFERKAREVCD-NLENFTS---- 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           328 SGOKKLFVTSAFAYL---AEDVGMVEPNKPNSILHPVDFEIBAKRACALNFEDVKSTYPR 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                372 ----GSPFLCMDLSYITALLKDGFGFA---DSTVLQLTKKVNN-IETGWALGATFHLLQS 423
                                                   309 RVVRGKLHQPEEV----QRGSFYAFSYYYDRAVDTDMIDYEKGGI---LKVEDFERKARE 361
                                                                                                       389 ----NGIHQPSLVHTFKETSDLYVPSYFYDRT-----QPLGLPLSFTLQELQDLART 436
                                                                                                                                                                                             362 VCDNLENFTS-----GS-----PPLCMDLSYITALLKDGFGFADSTVLQLTKKVNNI 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wedicago sativa (Altalia).

Bebyophyta; Tracheophyta; Bmbryophyta; Tracheophyta; Spermatophyta, Magnicophyta, Againcophyta, Againcophyta, Againcophyta, Againcophyta, Againcophyta, Againcophyta, Againcophyta, Papilionoide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Medican Programment of the Control o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 10; Length 455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22.6%; Score 507.5; DB 10; Length 34.0%; Pred. No. 2.7e-35; Ative 65; Mismatches 152; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-2000 (TrEMBLrel. 1) Last sequence update)
Nod fattor 1002 (TrEMBLrel. 20, Last annotation update)
Nod fattor binding lectin-nucleotide phosphohydrolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2000 (TrEMBLrel, 13, Created)
01-MAY-2000 (TrEMBLrel, 13, Last seqn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=99444909; PubMed=10517321;
                                                                                                                                                                                                                                                                                                                                             409 ETGWALGATFHLLQS 423
                                                                                                                                                                                                                                                                                                                                                                                                                  497 ELGWCLGASLPLLES 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          143; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=3879;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Root
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9MGS60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
Q9SPM6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  යි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                         ò
```

```
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
```

OM protein - protein search, using sw model

Run on:

November 13, 2003, 06:13:17; Search time 29 Seconds (Without alignments) 1419:317 Million cell updates/sec US-09-905-744B-6 Perfect score:

1 MATSWGTVFFMLVVSCVCSA......ETGWALGATFHLLQSLGISH 428 BLOSUM62 Scoring table: Seguence:

Gapop 10.0 , Gapext 0.5

Searched:

283308 Total number of hits satisfying chosen parameters: 283308 segs, 96168682 residues

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 76:\*
: pirl:\*
: pir2:\*
: pir3:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printted, and is derived by analysis of the total score distribution.

	ion	hypothetical prote	probable quanosine	nucleoside triphos	guanosine-diphosph	apyrase (EC 3.6.1,	probable nucleosid	hypothetical prote			hypothetical prote	~	probable nucleotid	hypothetical prote	hypothetical prote	7Al9.33 protein -	nucleoside-triphos	subtilisin-like pr	gene 1 protein - s	DNA polymerase hom	probable serine/th	polyketide synthas	probable cell divi	glucan 1,6-alpha-g	hypothetical prote	glucan 1,6-alpha-q	bacillolysin (EC 3	protein F35H12.4 [	iron-regulated out	patched protein -
SUMMARIES	g	T23508	T39109	\$48859	A40732	JC4616	G84442	D86276	T34147	T16696	S50463	I56242	T40856	E86276	T04439	C86276	A55421	JC2192	GIBPSV	T14555	747694	PN0637	T40813	E97910	H71347	C95040	HYBSS	F89453	AG3522	T18291
	DB	7	~	~	a	ď	7	N	~	7	7	N	a	a	<b>~1</b>	a	8	Н	-	6	~	a	a	N	N	N	-	N	N	2
	Query Match Length DB	479	556	455	518	454	516	483	485	557	630	510	572	405	1052	208	628	497	553	774	684	4427	1019	535	1151	535	548	604	654	1220
	Query Match	27.4	23.9	23.7	21.5	19.8	18.9	17.6	17.2	16.6	16.5	15.6	15.4	14.6	12.2	11.0	6.1	6.4	4.7	4.7	4.6	4.6	4.6	4.5	4.5	4.4	4.4	4.3	4.3	4.3
	Scor	616.5	538,5	489	483.5	446.5	425.5	397	387.5	372.5	372	351	347	329.5	274	248	138	110	106.5	105.5	104.5	104.5	102.5	101.5	101.5	99.5	99.2		97.5	24
	sult No.	н	2	m	4	S	9	7	œ	ō	70	11	12	13	14	15	16	17	18	13	20	21	22	53	24	25	56	27	28	29

hypothetical prote	fatty-acyl-CoA syn	subtilisin-like pr	hypothetical prote	probable phosphoes	subtilisin-like pr	subtilisin-like pr	subtilisin-like pr	coproporphyrinogen	H+-transporting tw	glycine hydroxymet	t-plasminogen acti	gluconate kinase g	probable ferric si	phosphatidylserine	succinyl-diaminopi
S66749	\$15999	JC2191	F90497	T37835	JC5571	A39490	JC5570	A87312	S13641	H70174	380597	D83984	AB0122	E71482	C82113
~	~	-	N	7	~	-4	~	~	~	~	N	~	~	~	6
711	2076	652	478	635	962	696	975	290	528	417	477	200	726	301	317
e.	4.2	4.2	4.1	4.1	4.1	4.1	4.1	4.1	4.1	0.4	0.4	4.0	4.0	0.4	4.0
96	95.5	95	93	93	93	93	93	92	92	91	16	91	91	90.5	90.5
30	33	35	33	34	32	36	33	38	39	40	41	42	43	44	45

## ALIGNMENTS

	Caen
	1
	K08H10.4
	protein A
80	thetical

RESULT 1

orhabditis elegans

Dispettes: Cenorbhaditis elegans C.Date: 15-00:1199 #sequence\_revision 15-0ct-1999 #text\_change 17-Mar-2000 C.Accession 723508 #Sequence\_revision 15-0ct-1999 #text\_change 17-Mar-2000 Submitted of the EMBL Data Library, November 1996

A;Reference number: Z19750 A;Accession: T23508

A, Cross-references: EMBL: 283113; PIDN: CAB05544.1; GSPDB: GN00023; CESP: K08H10.4 A; Molecule type: DNA A; Residues: 1-479 <WIL>

A, Experimental source: clone K08H10

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Gene: CESP:KO8H10.4 A;Map position: 1900 A;Map position: 36/13; 83/2; 300/2; 412/3 C;Superfamily: nucleoside triphosphatase chromatin-associated

9 FFMLVVS--CVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGTRIHVYT 66 Gaps Query Match 27.4%; Score 616.5; DB 2; Length 479; Best Local Similarity 3.4%; Preced. No. 1.38-43; Pered. No. 1.38-43; Matches 167; Indels 39; Matches 167; Indels 39; ઠ

67 FVQK------MPGQLPILEGEVPDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSH 119 61 PIHDPAIASHGMPFK---VEKEIFQEVKPGLSSFAKSPSSAADSLEPLLQRARKEVPHFM 117 120 WKKTPVVLKATAGLRLLPEHKAKALLFEVKE-IFRKSPFLVPKGSVSIMDGSDEGILAWV 178 6 FSILLISFPSLLSVVTYKTQY-WCHGDGVLN----NQHTCRFFTIVIDAGSTGTRLHLYK 60 셤 qq à ò

179 TVNFLTGQLH----GHR---QETVGTLDLGGASTQITFLDQFEKTLEQTPRGYLTSFE 229 쉱 g à

230 MFNSTYKLYTHSYLGFGLKAARLATLGALETEG--TDGHTFRSACLPRWLE-AEWIFGGV 286 ઠે g

346 KGGILKVEDFERKARENC----DNLENFISGSPFLCMDLSYITALLKOGFGFADSTVLQL 401
1 | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 1:1: | 287 KYQYGGNQEGEVGFEPCYAEVLRVVR-GKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYE 345 295 KP-WNINGSSSHSFESCYGTTKNFVESSEIMHLRELKGSPVYLFSYFFDRALNSGLVKGN 353 ò g à

		C; Key	C; Keywords: nucleus
b d	402 TKKNANELDUSALDATE 418   ::            4 414 AKKIKOHEVSWOQILAP 430	Que	Query Match 21.7%, Score 489; DB 2; Length 455; Beel Local Similarity 31.7%; Pred No. 6e-32; Matches 140; Conservative 62; Mismatches 180; Indels 54; Gaps 14;
RESULT 2 T39109	misnosina, Aichnoshafasa - fissinn Wase (Schiżnosarcharomoros nomba)	8	4) YGIMFDAGSTGRIHWYTFVQORGQLFILBG-EVFDSVREQLSAFVOQFRQAETVQGL 107
C.Species C.Date: 0.	C.Species Echizoaecharomyces ponhe C.Species Echizoaecharomyces ponhe C.Date: (0Dec.1999 #sequence_revision 0Dec-1999 #text_change 0Dec.1999 C.Accession T.9109	6 6	TO EDVACAS PROPERTY OF THE PRO
Kjaarreii Submitted A;Referen A;Accessi	1, h.; naitas;	% %	167 WEARDAYFEOODHARMSCHOOL CONTROL CON
A; Status: A; Molecul A; Residue	A.Status: preliminary; translated from GB/EMBL/DDBJ A.Molecula (Pyez: DMA A.Residues: 1-556 cBAR>	名 <i>장</i>	163 IDGTQBGSYLMYTVNYALGNLGKKYTKTVGVIDLGGGSVQNAYANS-KKTAKNAPKVADG 221 223QtLTSFBMFNSTYKLYTHSYLGFQLKAARLATLGALETBGTDGHTFRSACLPRNLE 278
A;Cross.ref A;Experimen C;Genetics:	A;Cross.references: EMEL:MA.11741; FIDM:CAB57338.1; GSPDB:GN00066; SPDB:SPAC824.08 A;Experimental source: strain 972h-; cosmid C824 C;Genetics:	qa	DDPÝIKKVVLKGIPÝDĽYVHSYLHFGREASRAEILKLTPRSPNPCLLAGFN
A,Gene: SPDB:SPAC A,Map position: 1	A;Gene: SPDB:SPAC824.08 A;Map position: 1	ò a	279 AEWIPGGVKYQYGGNQBGEVGFEPCYAEVLRVRGKLHQPESVQRGSF 326 273 GYPYSGEBFKATAATSG-AARPIKCKYTRKIL-KLAYCPVONTFGGIWNGGOGNGO 329
Query M Best Lo Matches	Queery March 556; Best Local Similarity 34.4%; Pred, No. 5.7e-27; Matches 144; Conservative 61; Mismatches 157; Indels 57; Gaps 13;	) & f	327
& &	49 YGIMEDAGSTGTRIHUYTEVQXMPGQLPILEGEVFDSVKFGLSAFVDQPKGGAETVGGLL 108 134 YVLMIDAGSTGSKYHYQPNRCNES - FÅLLESEFFORTEPGLSSFARDPRGAAALDELL 191 134 YVLMIDAGSTGSKYHYQPNRCNES - FÅLLESEFFORTEPGLSSFARDPRGAAALDELL 191	8 8	377
% to	109 EVAKOSIPRSHWKYTEVULKATAGIRILPEHKAKALLEEVKEIFRKS-PPIVPKGSVSIM 167 102 DYAMBANDPEKPET	DD DD THE	390 ASYVCKDLIYQYVDLVDGFGLDPLQKIISGKEIEYQDAIVEAANPLGNAVEAISAL 445.
1 8 1	168 DOSDBGILAMVTWRPLTGOLHGH-RQETVGTLDGASFTQTTFLEQFEKTLEGTFRG 223	A40732 guanos N,Alte	A40732 patoostine-diphosphatase (BC 3.6.1.42) - yeast (Saccharomyces cerevisiae) Nyategrade names: procein TRID478
3 <i>i</i> 2	224 VINTERMENSIYVETHYRVLOGGLAARLATLARLEBETTOHTPRAA 272	C,Sper C,Date C,Acc	C.)Optocles: Jacobarloges Curchislate C.)Optocles: Jacobarlogs Sequence revision 18-Nov-1994 #text_change 02-8ep-2000 C.A.Coession: A. Walnagis 1940732; 1940732; 230837; S.G.O. Russler, A.: Moremen, K.: Hirschberd, C.B. R.Abeijon, C.: Yanadislawa, K.: Mandon, E.C.: Hassler, A.: Moremen, K.: Hirschberd, C.B.
a 8	312 YVLDYNGEQYELYGHSHLGYGLKEARKLIHKFVLNNABALKESLELLG-DSTSIIHPC 368	J. Ce.	1 Biol. 122, 307-323, 1993  e. Guanosane diphosphatase is required for protein and sphingolipid glycosylation
§ 8	2/3 LINEASITHEDSKSERASEVYFVGPSLAHLSLQCRGIAERALYKDKNCPVRCSFNGVHQP 428	A; Acce A; Mole	Alkeevelee homoer: A4V/32; Mulu:933U813/; PMIU:839I33/ A:Accession: A4(7)32 A:Molecule type: DNA
ý d	319EEVORGEFYAFSYYVDRAUDYBKGGGILKVEDFRKKARBVC363 429 KTEMPTERONSTYLLSKYPYNDMTGIANDSTEFTTRIMKYANSVICKGTOFWANDABSIL 481	A P Cro	Nacaidues: 1-28 AMBS. A,Cross-references: RMBL:119560; NID:9340392; PIDN:AAM34656.1; PID:9349393 A. Marces: sequence extracted from NCBI backbone (NCBIN:134708, NCBIP:134711) A. Ancaes: an and an analysis of the common of the
: &	364 - DNIENFTSGSPFLCMDLSYITALLKOGFGPASSTVLQLTKKYNNIETGMALGATFHLL 421	A,Mole	cule type: procein dues: 125-144;238-257;276-281;366-374;399-412 cAB2>
QG QG	484 TDALKELKE-EPENCLDLNYMISLLSVGYEIPNNRQLHTAKKIDNKELGNCLGASLSNL 541	K;Mul. submit	KriMuliagan, J.T.; Defrinch, F.S.; Hemnessey, K.M.; Sehl, P.; Komp, C.; Wel, Y.; Taylor. submitted to the EMBL Data Library, February 1993 A;Reference number: 530812
RESULT 3 S48859 nucleosid	e tripbosphatase precursor, chromatin-associated - garden pea		A.Mochesdan, 201837 A.Molecule type: DNM A.Gross-references: GBL AUL. A.Gross-references: GBL 1879); EMBL:L10830; NID:ge03625; PIDN:AA865000.1; PID:g603637
C; Date: 1 C; Date: 1 C; Accessi	ir Flaum Sacilvum (garcem ped) 33-Jan-1995 #Begmeroc revision 13-Jan-1995 #text_change 29-Sep-1999 2001: S65147; S48859 H.1. France C. France C. Paris C. Pa		Killerini, F.S. Bubline Bata Library, December 1994 Alpestration: The EMBL Bata Library, Cerevisiae cosmids 8199, 8334, and 9871.
Plant Moi A,Title: A,Referer	dram Pol. 180, 185-187, 1986. ". ". ". ". ". ". ". ". ". ". ". ". ".		Akersince (Minder) sovay. Akersince (Minder)
A; Molecui A; Residue A; Cross-r C; Superfa	A.Wolecule types mRNA A.Resaiuses.1.455 482.5 A.Cross-references EMBL.722743, MID:9563611, PIDW:CAAB3655.1, PID:9563612 C.Superfamily: nucleoside triphosphatase chromatin-associated	A, Genetics: A, Genetics: A, Genetics: A, Cross-ref A, Map posit	Cidentics. Cidentics. Cidentics. Cidentics. A.Cross-references; SGD:S0000768; MIPS:VEL042w

ò 셤 셤 g ò g ద g ò 유 ò 윱

à ò ð 8

```
probable mucleoside triphosphatase [imported] - Arabidopsis thaliana

Species Arabidopsis thaliana [moise-an cress]

Cipate 10-reb-2001 [agequence_tevision 07-reb-2001 [text_change 18-Nov-2002]

Cipate 10-reb-2001 [agequence_tevision 07-reb-200] [text_change 18-Nov-2002]

Ridar X. Raul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.

Ridar X. Raul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, L.; Tallon,

euss, D.; Neisman, W.C.; White, Condin, La.; Shea, M.Y.; Walker, S.B.; Unswar, L.; Fraser, C.M.;

Rittle 802 [Araser, C.M.; Mitte, O. Risen, J.A.; Salzbergy, S.L.; Fraser, C.M.; Reference minmer: A84420; MUID:20083487; PMID:10617197
P.31-454/Product: ATP-diphosphobydrolase Retruss predicted vMT>
F44-65/Region: Actin-hads show protein To-havokinase beta-phosphate binding
F142-217.Region: actin-hads show protein To-havokinase beta-phosphate binding
F152-217.Region: mcleotide binding Retenus predicted
F152-217.Region: mcleotide binding Retenus predicted
F150-1217.Region: mcleotide binding Retenus predicted
F151-2517.Region: mcleotide binding Retenus predicted
F151-2517.Region: mcleotide binding Retenus predicted
F151-2517.Region: mcleotide binding Retenus predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73; Gaps 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  184 TGQLHGHRQETVGTLDLGGASTQITFL---PQFEKTLE-QTPRGYLTSFEMFNSTYKLYT 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240 HSYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGNQEGEVG 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 242 HSYLNYGQLAGRABIFKASRNES-----NPCALEGCDGYYSYGGVDYKVKAPKKGS-- 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300 FEPCYAEVLRVVRG--KLHQPEEVQRGSF------YAFSYYDRAVDTDMI 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      293 ---SWKRCRRLTRHALKINAKCNIESCTFNGVWNGGGGDGQKNIHASSFFYDIGAQVGIV 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               343 DYE-KGGILKVEDFERKAREVCD-NLENFTS-----GSPFLCMDLSYITALLKDGFG 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66 TFVQKMPGQLPILEG-EVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHWKKTP 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63 RFDBKL-GLLPIGNNIEYFMATEPGLSSYAEDPKAAANSLEPLLDGAEGVVPQELQSETP 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                125 VVLKATAGLRLLPEHKAKALLFEVKEIFR-KSPPLVPKGSVSIMDGSDEGILAWVTVNFL 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122 LELGATAGLERNÍKGDAÁEKÍLÓAVRNÍVKNOSTFHSKDOWVTÍLDGTQEGSYMWAAINYL 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182 LGNLGKDYKSTTATIDLGGGSVQMAYAISNEQFAKAPQNEDGEPYVQQKHLMSKDYNLYV 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25 NQQTWPEGIFLS-----SMCPINVSA-----STLYGIMFDAGSTGTRIHVY 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 NONSHPIFILLAIFLULPLSLLSKNUNAQIPLRRHLLSHESEHYAVIFDAGSTGSRVHVF 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42 NVSASTLYGIMFDAGSTGIRIHVYIFVQKMPGQLPILE--GEVFDSVK--PGLSAFVDQP 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A, Cross-references: GB: AE002093; NID: 93461821; PIDN: AAC32915.1; GSPDB: GN00139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 2; Length 516;
                                                                                                                                                                                                                                                                                                                                                                          DB 2; Length 454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18.9%; Score 425.5; DB 2; Length 5 30.6%; Pred, No. 1.5e-27; tive 61; Mismatches 154; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                               78; Mismatches 177; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Map position: 2
C;Superfamily: nucleoside triphosphatase chromatin-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          393 F---ADSTVLQLTKKVNN-IETGWALGATFHLLQS 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410 LNPHKEITVIHDVQYKNYLVGAAWPLGCAIDLVSS 444
                                                                                                                                                                                                                                                                                                                                                                          19.8%; Score 446.5; DB 2, 28.8%; Pred, No. 2, 2e-29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ....
                                                                                                                                                                                                                                                                                                                                                                                                                           28.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 131; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 127; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Residues: 1-516 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: preliminary
A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Gene: At2g02970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C,Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Office (EC 3.6.1.5) precureor protato
NATIONA CONTROL (EC 3.6.1.5) precureor protato
NATIONA CONTROL (EC 3.6.1.5) precureor protato
NATIONA CONTROL (EC 3.6.1.5) precureor protato
C. Daces (E. Mar.) 1996
E. Mar. (E. Mar.) 1996
E. Mar. (E. Mar.) Prof. (E. Mar.)
A. Reference number: Office (E. Mar.)
A. Reference (
                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93 YVIMIDAGSTGSRVHIYKFDVCTSP---PTLLDEKFDMLEPGLSSFDTDSVGAANSLDPL 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           210 IMCGDEEGVFAWITINYLLGNIGANGPKLPTAAVFDLGGGSTQIVFEPIFFINERAVVDGE 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       270 HKFDLKFGDENYTLYOFSHLGYGLKEGRNKVNSVLVENALKDGKILKGDNTKTHQLSSPC 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 273 LPRWLEA--EWI------PGGVKYOYGG------NOEGEVGFEPCYAEVLR 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       330 LPPKVNÁTNEKVTLESKETYTIDFIGPDEPSGAQCRFLTDEILNKDAQCQSPPCSF---- 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   310 VVRGKLHOPEEV----ORGSFYAFSYYYDRAVDTDM-IDYEKGGILKVEDFERKAREVC- 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 386 ---NGVHQPSLVRTFKESNDIYIFSYFYDRTRPLGMPLSF-----TLNELNDLARIVCK 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             364 -----DNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIET 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437 GEETWNSVFSGIAGSLDELESDSHF-CLDLSFOVSLLHTGYDIPLORELRTGKKIANKEI 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 49 YGIMFDAGSTGTRIHVYTF-VQXMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGL 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108 LEVAKUSIPRSHWKKTPVVLKATAGLRILPEHKAKALLFEVKEIFRKS-PFLVPKG-SVS 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             166 IMDGSDEGILAWVTVNFLTGQL--HGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRG 223
                                                                                                                                                     C: Keywords: glycoprotein; Golgi apparatus; hydrolase; transmembrane protein F;10-24/Domain: transmembrane #status predicted <TMM>
                                                                                                                                                                                                                                          F;41,280,335/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                           75;
                                                                                                                                                                                                                                                 21.54; Score 483.5; DB 2; Length 518; Matchee 142; Conselvative 85; Merchee 142; Conservative 85; Meanner 123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C.Superfamily: nucleoside triphosphatase chromatin-associated C.Kevyords: giveoprotein, hydrolase; transmembrane protein Pr.1-30/Domain: signal sequence Heatus predicted <81G>P.8-25/Domain: transmembrane #status predicted <TVMN-
                                                               A; Description: hydrolase
C; Superfamily: nucleoside triphosphatase chromatin-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411 GWALGATFHLLQS 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             496 GWCLGASLPLLKA 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     olved in starch synthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A,Gene: rrop1
                                   C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C, Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
```

QY   261 BG  DGHTFRSACLPRWLEARNIFGOVKQYQGNGGGVGFBCCARB 306	PRESULT 8 TEACH TO THE CONTROL OF TH	C;Superfamily: nucleoside triphosphatase chromatin-associated Oucry Match 11.7%; Score 387.5; DB 23, Length 485; Best Local Similarity 27.7%; Score 387.5; DB 24, Length 485; Best Local Similarity 27.7%; Predd. No. 2.16-24; Matches 120; Conservative 84; Mismatches 122; Indels 77; Gaps 18; Oy 191 PRIMEDAGSTORENTIFYORMEGOLFLEGEVPR	DD 144 STRINGOMEGITSSITNOWILESPOKEDDSKUMHIDWGGAS/OGABEADAEKSYNGG 203  216 TAEQTERGILASEBURNSTYKLYHEKTOKARALATAGALETEGTDGHTFREACLER 275  204 NVEENUGSIENEDYK-YKINTHENGGGKAARALATAGALETEGTDGHTFREACLER 275  205 UNVEENUGSIENEDYK-YKINTHENGGELANGEAKKYENGLYGGEN
61 119 119 179 212 239 265	Db 288 EKPTPDPARKORNLDANTQHISGLARESERSDSSCROAT	Atthores: Blutter, J. L. Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khavykin, E.; Kim, C. A., Li, J. H.; Li, Y.; Lin, Y.; Liu, Y.; Liu, Z. A.; Liuros, J.S.; Maiii, R.; Marziali, R.; Etaco, M.; Rochey, T.; Mankor, M.; Sun, H.; Sun, H.; Fallon, Razo, M.; Rochey, T.; Rowley, D.; Sakano, H.; Sun, E.; Sulmin, F.; Southurick, A. M.; Sun, H.; Tallon, Rer, M.; M.; D.; Yu, Gomery, T.; Prager, C. M.; Wonter, J. C.; Davis, R. W.; Mu. H.; Tallon, Rer, M.; M.; D.; Yu, Gomery, T.; Prager, C. M.; Wonter, J. C.; Davis, R. W.; Mu. H.; Tallon, Rer, M.; M.; D.; Yu, Gomery, T.; Prager, C. M.; Wonter, J. C.; Davis, R. W.; Anidogosis, A.; Recence number: Advisit MUD:210.6712; PhD:1110712 Arabidopsis Arabidopsis Arabidopsis Arabidopsis Arabidopsis Arabidopsis Arabidopsis District Arabidopsis Arabidopsis Arabidopsis Arabidopsis Arabidopsis District Arabidopsis Arabidops	C.Superfamily: nucleoside tribnosphatase chromatin-associated  outery Match  best Local Similarity 2.04, Score 397, DB 2; Length 483,  best Local Similarity 2.04, Score 397, DB 2; Length 483,  best Local Similarity 2.04, Score 397, DB 2; Length 483,  Matches 120, Conservative 71, Matches 120,  or 32 GIPLSSWCPINSATICHMPAGNCTRIN-YFVQRHOQUPILEGRUP  DB 59 GSLLÄRRCKIAYSVLINDGSSCHWHYCPWRESGRP

```
**Mariaseweki, C.R.; Delappeses, G.J.; Schoenborn, M.N.; Armitage, R.J.; Famelow, W.C. J. Tramunol, 153, 3574-1589, 1994
**Tritle: The COS9 lymphoid coll activation aghigan Nolecular cloning and structural c A.Reference number: EGG42; MUID:95015846; PMID:7930580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358 DKFSKSLREFCNSNWTQILANSDKGVYNSIPENFLKDACFKGNWVLNILHEGFDMPRIDV 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93 FVDQPKQGAET-VQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEV-KE 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69 FEKKPODAYKSHIKPILDPAKNIIPESHWSSCPVFIQATAGMRLLPQDIQSSILDGLCQG 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   151 IFRKSPFLVP--KGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQE----TVGTLDLGGA 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       204 STQITFLPQFEKTLE-----QTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARL 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            189 STÓIAFAPHDSGEIARHRDDIATIFLRSVNGDLOKWDVFVST-----WLGFGANOARR 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        253 ATLGAL------ETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGGUGGEVGFE 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242 RYLAQLINTLPENTNDYENDDFSTRNLNDPCMPRGSSTDFEFKDTIFHIAGSGNYEQCTK 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          302 PCYAEVLR------VVRGKLHQPE-EVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKV 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        302 SIYPLLLKUMPCDDEPCLFNGVHAPRIDFANDKFIGTSEYWYTANDV----FKLGGEYNF 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     353 EDFERKAREVCDN-----LENFTSG-----SPFL---CMDLSYITALLKDGFGFA---- 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91 SAFVDQPKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLL.--PEHKAKALLFF 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92 SKFVQKVNEIGIYLTDCMERAREVIPRSQHQETPVYLGATAGMRLLRMESEELADRVLDV 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       148 VKEIFRKSPFLVPKGSVSIMDGSDEGILAMVTVNFLTGQL-------HGHRQETV 195
                                                                                                                                                                                                                                                                                                                                                                                                       49 YGIMFDAGSTGTRIHVYTF-----VQKMPGQLPILEGE---VFDSVKPGLSA 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 FGIVIDAGSSGSRIHVFKWODTESLLHATNODSQSILQSVPHIHQEKDWTF-KLNFGLSS 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32 GIFLSSMCPINVSASTLYGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVK-PGL 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36 GLTONKALPENVK----YGIVLDAGSSHTSLYIYKWPAEKENDTGVVHOVEECRVKGPGI 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C.Species: Homo sapiens (man)
C.Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 18-Nov-2002
                                                                                                                                                                                                              16.5%; Score 372; DB 2; Length 630;
26.2%; Pred. No. 6.1e-23;
tive 73; Mismatches 165; Indels 92; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A.Residues: 1.-510 <RES>
A.CTOSS references: GB:S73813; NID:g765255; PIDN:AAB32152.1; PID:g765256
(Supperfamily: mucleoside triphosphatase chromatin-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15.6%; Score 351; DB 2; Length 510; 27.8%; Pred. No. 2.6e-21; Live 71; Mismatches 175; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A, Status: preliminary; translated from GB/EMBL/DDBJ
A, Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       395 -----DSTVLQLTKKVNNIETGWALG 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              418 DAENVNDRPLFQSVEKVEERELSWILG 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ymphoid cell activation antigen - human
                     A;Gene: SGD:YND1, MIPS:YER005w
A;Cross-references: SGD:S0000807
A;Map position: SR
                                                                                                                                                                                                                                                                                                          Matches 117; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 123; Conservative
                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C, Accession: I56242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: I56242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                            Query Match
C; Genetics;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                              Willier, N. W. Seguence of C. elegans cosmid R0784.

**Nescription: The sequence of C. elegans cosmid R0784.

**Nescription: The sequence of C. elegans cosmid R0784.

**Necession: Th668

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       submitted to the EMBL Data Library, December 1994
Missoription: The sequence of S. cerevisiae cosmids 9537, 9581, 9495, 9867, and lambda
A.Reference number: 550433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Owery March
Best Local Similarity 28.3%; Pred. No. 4.6e-23; Length 557;
Marches 126; Conservative 89; Mismarches 160; Indels 91; Gaps 21;
Marches 126; Conservative 89; Mismarches 160; Indels 91; Gaps 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49 YGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDS-----VKPGLSAFVDQPKQGAE 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 44 YGVICDAGSTGTRLFVYNWISTSDSELIQIEPVIYDNKPVMKKISPGLSTFGTKPAQAAE 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       158 L----VPKGSVSIMDGSDEGILAWVTVNFLTGQLH------GH-RQETVGTLDL 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16. ITSMQVLKEHIRİLBGKWEĞIYSWIAVNYALGKFNKTATLDFPGTSPAHARQKTVĞMIDM 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201 GGASTQITF-LPQFEK----TLEQTPRGYLTSFEMFNSTYKLYTHSYLGF----GLKAAR 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     252 LATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGN--QEG------- 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              103 TVOGLLEVAKDSIPRSHWKKTPVVLKATAGLRLIPEH-----KAKALLFEVKEIFRKSPF 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221 GGASAQIAPELPDTDSPSSINVENINLGCREDDSLFK--YKLFVTTFLGYGVNEGIRKYE 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          279 HMLLSKIKDO--NGTVIQDDCMPLNLHKT-----VTLENGENFVRRGTGNWNTCSNEVKK 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       297 ----EUGFEPCYAEVLRVVRGKLHQPB-EVQRGSFYAFSYYYDRAVDTDMIDYEKGGILK 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     332 LINPESSSEVCKAEAAKCYFGAVPAPSIPLSNIEMYGFSEYWYSTHDV----LGLGGQYD 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 352 VEDFERKAREVCD-----NLENFTSGSP-----FLCMDLSYITALLKDGFGFADST 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       388 AENIAKKTÓGYCSKRWSTIGAESKKGLYPRADEERLRTGCFKSAWIÍSVLHDGFS-VDKT 446
                                                                                                                                                                   Opporterical protein ROTS4.4 - Commontabilitis elegans
C.Species: Abenorhabilitis elegans
C.Species: Obser_1999 Hasquence_revision 20-Sep-1999 #text_change 20-Sep-1999
C.Accession: Ti6596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C.jSpecies: 28-charomyces cerevisiae
C.jDate: 28-May-1993 #sequence_revision 24-Feb-1995 #text_change 19-Apr-2002
C.iAccession: SGOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Gene: CESP:R07E4.4
A;Introns: 39/1; 67/1; 145/2; 192/1; 244/3; 317/3; 451/3; 488/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hypothetical protein YER005w - yeast (Saccharomyces cerevisiae)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            398 -- VLQLTKKVNNIETGWALGA-TFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     447 HNKFQSVSTIAGQEVQWALGAMIYHM 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,Accession: S50463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R; Dietrich, F.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

74; Gaps

DD 152 VERSLSNYPFDFQCARIITGQEEGAYGWITINYLLGKFSQKTRHFSIYPYETNNGETF 209 196 GTLD_GGASPTTFLOFPERTYDCPRGTISFBFRNSTYLLAYFGTGGGKARALALL 255 197	Qy 399LQLTKKVNNIETGWALG 415 Db 397 AKDGISVIPAYHSPPTSLEKIENTENSWTLG 427
Gy 256 GALETEGTDGHTPRSACLPRHILAMMIPGGWKYQXGGNOSGE 297 Db 267	RESULT 13  BR6776  PROFILE LOS   Procein F1417.1 - Arabidopsis thaliana  Cismedias Arabidosis H1417.1 - Arabidosese chaliana
Qy 298 VGFEPCYABVLAVVRGKLAQPEBVQRGSFYARSYYYDRAVDTDMIDYE 345  Db 322 -19Q749GILELFWTSYCPYSQCAFWGTPEPPLQGDFBARAR-FYPWKLA158 375	C.Date: 02-Mar-2001 Heeguence_revision 02-Mar-2001 Htext_change 31-Dec-2001 C.Dateseston; B862746 ** 1886746 ** 1887
Qy 346 KGGILKVEDPERK-AREVCDNLENFTSGSPELCMDLSYITALLKDGFGF-ADS-T 397 Dh 3-2 KMCADA-WARNETCHADARET WAS VARIANCE WAS VICENCY LECKTIAL KANNETPRABISHE 415	unit, c.m.; Juning, m.k.; John, L.; Cohway, A.B.; Cohway, A.K.; Ceesy, J. J. J. Lander, N.F.; Hughes, B. F.; Hilzar, F. Hilzar, F. Hilzar, J. Matture 408, 66-220, 2000 A.Anthore: Hinter, J. J. Jenkins, J. Johnson-Honson, C.; Khan, S.; Khavkin, E.; Kim, A.Anthore, Hunter, J. J. Jenkins, J. J. Johnson-Honson, C.; Khan, S.; Khavkin, E.; Kim, J.
	C.A., Li, J.H., Li, Y., Lin, X., Liu, S.X., Liu, Z.A., Luros, J.S., Maiti, R., Marzial R. a. Zezo, M., Rondeny, T., Roadey, D., Sakono, H. A. Anthore: Salzberg, S.L., Softwartz, J.R., Shin, P., Southwick, A.M., Sun, H., Tallon A.Anthore: Salzberg, S.L., Softwartz, J.R., Shin, P., Southwick, A.M., Sun, H., Tallon
Db 436 HIHPIGKLQGSDAGWTLGYMLNL 458 RBSGUT, 12	RET, M.; Mi., IV. Jo.; Prissib. L., L., L., L., L., L., L., L., L., L.
740856, probable nucleotide phosphatase - fission yeast (Schizosaccharomyces pombe) C.Specias Schizosaccharomyces pome C.Pates 03 -Dec.1999 Heequence, revision 03-Dec.1999 #texts_change 03-Dec.1999	A.Status, prediatinary A.Molecule type: DNM A.Residues 1. 405 - 870. A.Cross-references: 881.2006112, NID:97102666; PIDN:AAR43924.1; GSPDB:GN00141 A.Cross-references: 881.2006112, NID:971020666; PIDN:AAR43924.1; GSPDB:GN00141
C;Accession: T40856 R;Rangerger, U.; Pohl, T.; Wood, V.; Rajandream, M.A.; Barrell, B.G.	C;Genetics: A;Map position: 1
boffictors or unit and Data Liviary, October 1979 A;Recession THOSE 22195 A;Recession THOSE A A;Status: preliminary; translated from GB/BMEL/DDBJ	Query Match 14.6%; Score 229.5; DB 2; Length 405; Best Local Stailsrity 26.3%; Pred No. 1.2e-1.59; Matches 110; Conservative 63; Mismatches 159, Indels 87; Gaps 15;
A.F.MOGGOULE Urps: DNA A.R.MOGGOUSE: 11-72: CAMAY A.F.GCOSS-EXCEPTION: CAMAY A.F.GCOSS-EXCEPTION: CRAIM 977A+-; COSMIG CLEBIO CAMAY CLEBIO CAMAY CAMAY CAMAY COSMIGNOS CONTROL CAMAY CAMAY COSMIGNOS CONTROL CAMAY CAMAY CAMAY COSMIGNOS CAMAY C	QV 48 IXGINFDAGSTGTRIHVTFVQROBCQLFILGGEVDSWRDCLSAFVDQBKQARETVQGL 107  Db 3 VFGVWESGKP
A.Genetics: A.Gene: SPDB:SPCC11510.05c A.Map position: 3	OY 108 LEVAKOSIPRSHMKKTPVVLKATAGIRLLPEHKAKALLPEVKEIPRKSFELVPKKSOVSIM 167  bb 49 VEPAKKEIPRKEILKKEIPRAHAAAGRILLOVPSOOILEVYRSSOFKEODSMAVVI 108
Query Match 15.4%, Score 347; DB 2; Langth 572; Best Loral Similarity 25.5%, Pred No. 6.6.2, 1 Indels 112; Conservative 6; Marches 157, Indels 112; Gaps 16;	-
49	Db 109 SGTDEGIYAMYANHALGSLKGODPLKTTGIYELKGARAQYTEVDEEHVPPEFSRT 163 Qy 228 FRANFSTYKLIYTHSYLGFQLKAARLATLGALETEGTOGHTFRSACLPR 275
Db 5 VGIFIDAGSSGSRLLIYSMPYDTDSSLSDKVKKLFLIFTGIGDGGKMSLKVQPGISSFAN 64 Qy 96 QPKQ-GAETVQGLJLEVAKDSIPRSHWKKTPVVLKATAGLRLL-PEHKAKALLFEVKEIFR 153	164
	Cy 276MIEREMIR-CONYXONGNEGENGEPEPPYRANTY-CKLHOPEEVORGSFYA 328  Db 224 KOSSGFJSEESKFYRASLONGARADFYKORGATLAMIOREGEN
Qy 154 KSPFAVP-KGSRDSEDSIAMYVNENTGQAHGRGGEYVGLAGGASYDTFELP 211     Db 125 NYDFDIFNCSNSIRVIDGKARGHYGNAMANYLLKTLERKDFSTVGFLDMGGASVQIAF 182	QV 339 FSYYYDBAUDTBILDERGGILGUEDF
Qy 212 QPEKTLEOUPROPLIASFEMENSTVKLYTHSYLGFGLKAARLATLGAL. 258  Db 183	
CD 259 ETE-CTDCHFRSACLPRNIEARMIRGOVYCYCGNOGGGYGFEPCY 304 Db 236 ESSKGRVGRTLGSPCSIRGRYYDIDGE PROTGDLACCLKLYNLANDKOSCSWDECK 293	Db 325 KEKYETTKDKYLHRYCPESAYIISMLHD8LGVALDDERIKYASKAGKENIPLDWALGA 382 RESULT 14
Cy 305 ABULKNYRGKLÄGPEBVÖRGSFYARSYYTÖRAUDTIMILDYERKKALIKVEDERKKARDVC-363 Db 294 PÖGISIPVUDSANTEPUGNSERWYTINDV	Trochettoal protein T18B16.156 - Arabidopsis thaliana Cispecies: Arabidopsis thaliana (mouse act cress) Cispecies: Arabidopsis thaliana (mouse act cress) Cispecis - Arabi-1999 Heart change 30-Apr-1999
Qy 344 TEWETMISRLYNKELTPSTDENKLEKLÜTKASNALAVLHBGFDVPKSNTSND 398	C.Accession: T04439 R.Bewan, M.; Benes, V.; Rechmann, S.; Borkova, D.; Ansorge, M.; Bancroft, I.; Mowes, H submitted to the Prorein Sequence Database, April 1998 A;Reference number: 215359

11.04; Score 248; DB 2; Length 508; 23.18; Pred. No. 1.1e-12; Indels 126; Gaps 21; t.ve. 77; Wismatches 159; Indels 126; Gaps 21;

Best Local Similarity 23.3 Matches 110, Conservative

à 셤 g ò 윱 ò g à g à g à 셤

ò

Query Match

136 KGKLKKSDIRLMATAGMRLLELPVQEQILDVTRRVLRSSGF------DFRDEWASV 185

12 LUVSCUCSAV...--SHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60 35 VIVACVTIALGLIFIGYSILRSGRNRR -----VSLHYSVIIDGGSSGT 77 232 AYGNVSYNLYSHSFLDFGQDAAQEKLSESLYNSAANSTGEGIVPDFCIPKGYILETNLQK 291

326 PYAFSYYY-----DRAVDTDMI------DYEKGGILKVEDFERKAREVCDNLE 367

368 NFTSGSPFLCMDLSYITALLKDGFGFA-DSTVLQLTKKV--NNIETGWALGA 416

```
12.2%; Score 274; DB 2; Length 1052;
24.9%; Pred, No. 2.1e-14;
tive 70; Missecchee 171; Indels 82; Gaps 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             364 DN----LENFTSGSPFL----CMDLSYJTALKKDGFGFADSTV-----LQLTKKVNNIET 410
                                                                                                                                                                                                                                                                                                                                                                                                                          525 LUYIUSITGTRAYVÝQASINYKKDSSLPIVNKSLTEGISRKSRGRAYDRMETEPGFDKLV 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95 DQPKQGAET-VQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFR 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               585 NN-RTGLKTAIKPLIQWAEKQIPKNAHRTTSLFVYATAGVRRLRPADSSWILGNVWSILA 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   154 KSPFLVPKGSVSIMDGSDEGILAWTVNFLTGQLHG-HRQETVGTLDLGGAGTQITFLPQ 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     644 KSPFTCRREWVKIISGTEZAYFGWTALNYQTSMLGALPKKATFGALDLGGSSLQVTFBNE 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           704 - ERTHNETN----LNLRIGSVNHHLSAYSLAGYGLNDAFDRSVVHLLKKLPNVNKSDLIE 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256 GALETEGIDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGFE-----PCYAEVLR 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 759 GKLE------MKHPCINSGYNGQYICSQCASSVQGGKKGKSGVSIKLVGAPNWGECSA 810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310 VVR-GKLHQPEEVQR--GSFYAFSYYYDRAVDTDMIDYEKGGI---LKVEDFERKAREVC 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          811 LAKNAPCALPDGYPRPHGQPYAVSGFF-----VVYRFFNLSAEASLDDVLEKGREFC 862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           213 FEKTLEOTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAA-----RLATL---- 255
                                                                                                                                                                                                                                                                                                                                                                       51 IMFDAGSTGTRIHVY--TFVQKMPGQLPIL------EGEVFD--SVKPGLSAFV 94
                                                                                                     A.Experimental source: cultivar Columbia, BAC clone 718B16 C.Genetals:
C.Genetals:
A.Map postition: 4
A.Introns: 79/3, 118/3, 217/1, 295/3, 396/3, 531/2, 815/3
                             A;Molecule type: DNA
A;Residues: 1-1052 <BEV>
A;Cross-references: EMBL:AL021687
                                                                                                                                                                                                                                                                                       Best Local Similarity 24.98
Matches 107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       411 GWALGATPHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          923 GKALSSTLGL 932
A; Accession: T04439
                                                                                                                                                                                                               A;Note: T18B16.150
                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
```

```
403 RY-----CFSSAYIISMLHDSLGVALDDERIKYASKAGEEDIPLDWALGA 447
                                                                                                                            Search completed: November 13, 2003, 06:20:21
Job time : 34 secs
```

E. Theologist. E. Feker, J.R.; Pallm, C.J.; Pederspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.M.; Cheese, J.R.; Creese, T.H.; Dewar, K.; anser, M.K.; Corne, L.; Conwey, A.R.; Creese, T.H.; Dewar, K.; anser, M.K.; Mudden, E. & M. H.; Cheese, T.H.; Dewar, K.; Aster edg. Side 86 2000 Anser, M.S.; Marker, G. & 2000 Anser, M.S.; Marker, G. & 2000 Anser, M.S.; Marker, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C. Rizzo, M.; Roorey, T., Sakano, H. X.; Liu, S.X.; Liu, S.X.; Liu, S.S.; Markin, R.; Marriali, Rizzo, M.; Roorey, T.; Rowley, D.; Sakano, H. S.; Siden, C. S.; Siden, C. S.; Marker, A.M.; Sun, H.; Tallon, Ker, M.; M., D.; Yu, G.; Fraese, C.M.; Venter, J.C.; Davis, R.M.

C.Species Arabidosis thaliana (moise-ear cress) C.Deceies O2-Mar-2001 #sequence\_revision 03-Mar-2001 #text\_change 18-Nov-2002 C.Abcession: 086776

7A19.33 protein - Arabidopsis thaliana

A; Cross-references: GB: AE005172; NID: 95080800; PIDN: AAD39310.1; GSPDB: GN00141

A;Status: preliminary A;Molecule type: DNA A;Residues: 1-508 <STO> A;Accession: C86276

A;Map position: 1 C;Superfamily: nucleoside triphosphatase chromatin-associated

```
November 13, 2003, 06:19:46; Search time 44 Seconds (without alignments) 1775:806 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MATSWGTVFFMLVVSCVCSA......ETGWALGATFHLLQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Published Applications And Andreas (1807) Published Applications Andreas (1807) Published Applications Andreas (1807) Published Applications Andreas (1807) Published For Table Published (1807) Published For Table Published (1807) Published (180
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           666188 seqs, 182559486 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match Of
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                       OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-905-744B-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seguence:
                                                                                                                                                                                                                                                                                                                                                                              Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

											_	_	_		_	_
		Appli	App 1	Appli	App	Appi	App	App	Apr.	Appl						
	_	3	s.	'n	'n		'n	,	7	7	25,	25,	39,	76,	876	27
	Description	Sequence 3,	Sequence	Sequence	Sequence	Segmence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence 25	Sequence 39	Sequence 876	Sequence 876	Sequence 27,
SUMMARIES	ID	US-10-286-926-3	US-10-286-926-5	US-10-091-085-3	US-10-091-085-5	US-10-092-063-3	US-10-092-063-5	US-10-286-926-7	US-10-091-085-7	US-10-092-063-7	US-10-286-926-25	US-10-092-063-25	US-10-092-063-39	US-09-925-299-876	US-09-925-299-876	US-10-286-926-27
	8	12	12	14	14	14	14	7,5	14	14	12	14	4	6	ដ	12
* Query	Length	428	428	428	428	428	428	428	428	428	405	405	465	330	330	484
şry	ų.	0.0	0.	100.0	0.0	0.0	0.0	6	6	۳.	3.5	S.	7.7	8.	3,8	4.
*ŏ	Mat	100	70	700	ě	č	õ	ŏ	œ,	9.	6	ò	80	7	۲	4
	Score	2250	2250	2250	2250	2250	2250	2235	2235	2235	2104	2104	1837.5	1660	1660	666
Result	No.	-	7	m	4	S	9	٢	æ	6	10	11	12	13	14	15

; TYPE: PRT ; ORGANISM: Homo sapiens US-10-286-926-3

a)	Sequence 15, Appli Sequence 15, Appl Sequence 286, Appl Sequence 74, Appli Sequence 4, Appli Sequence 4, Appli	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 6 6 , , , ,	4444444	Sequence 496, App Sequence 496, App Sequence 496, App Sequence 496, App Sequence 496, App Sequence 496, App
US-09-835-147- US-09-835-147- US-09-835-147- US-09-129-112- US-09-129-112-	US-09- US-10 US-10 US-09-	US-10-187 US-10-184 US-10-184 US-10-196 US-10-173	-10-173-690-4 -10-173-691-4 -10-173-692-4 -10-173-694-4 -10-173-699-4	2 US.10.174-569-496 2 US.10.174-5683-496 2 US.10.174-587-496 2 US.10.174-599-996 2 US.10.174-591-496 2 US.10.175-736-496 2 US.10.175-736-496
14 01 01 01 01	444462 4555 4555 6555 6555 6555 6555 655		4444444 8088888888 608888888	
26.2 23.7 22.6 22.6	22 21 21 19 19 19 19 19 19 19 19	. 25 25 25 25 25 25 25 25 25 25 25 25 25	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
999 590 533 507.5	498 491.5 435. 429.5	9 9 9 9 9	88888888	3358 358 3358 358 358 358 358 35 358 35 358 35 358 35 358 35 358 35 358 35 358 35 35 35 35 35 35 35 35 35 35 35 35 35 3
118 118 118	122222	30387	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0 4 4 4 4 4 4 0 0 0 0 1 1 1 1 1 1 1 1 1

ALIGNMENTS	6-3	«ZZ	 PRIOR PLIMO PARKE 1999-103 PRIOR PLIMO PARKE 1999-103 PRIOR APPLICATION NUMBER: 0.9/2149 PRIOR PLIMO PARKE 1999-0.2-44 PRIOR PLIMO PARKE 1999-0.2-94 PRIOR PLIMO PARKE 1999-0.2-94 PRIOR PLIMO PARKE 1999-0.2-95 PRIOR PRIOR PARKE 1999-0.2-16 PRIOR PRIOR PRIOR PARKE 1999-0.16 PRIOR PARKE 1999-0.16 PRIOR PARKE 1999-0.19
		e x	

g

કે 용 g à g à 요 g

; TYPE: PRT ; ORGANISM: Homo sapiens US-10-286-926-5

us-09-905-744b-6.rapb

```
181 NELTGOLHGHRQSTVGTLDLGGASTQITPLQGEKTLEGTRGGLISFENFRSTYKLYTH 240
181 NELTGOLHGHRQSTVGTLDLGGASTQITPLQGEKTLEGTRGCLISFENFRSTYKLYTH 240
181 NELTGOLHGGTVGTLGGASTQTLGGASTQTFLQGFRKTLEGTPRGCLISFENFRKTYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 BVCDNLENFTSGSPFLCMDLSYITALLKDGGGPADSTVLQLTKKVNNIFTGMALGATFFL 420
S461 BVCDNLENFTSGSPELGMDLSYITALLKGGGFADSTVLQLTKKVNNIFTGMALGATFFH 420
S461 BVCDNLENFTSGSPELGMDLSYITALLKGGGFADSTVLQLTKKVNNIFTGMALGATFFH 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 RIHVYTPVQKARGGLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 BPCYABVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFBGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                1 MAISWGTVFFMLVVSCVCSAVSHRNQQTWPEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Malero, Julio
TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO NOVEL CD39-LIKE
TITLE OF INVENTION: POLYPEPTIDES
                                                                                                                             Onery Match

100.04; Score 2250; DB 12; Length 428; Best Local Similarity 100.04; Pred. No. 1.5e-215.

Marches 478; Conservative 0; Mismarches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 2250; DB 14; Length 428;
Pred. No. 1.5e-215;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TILE SEGMENT OF PARKETILLES
CURRENT APPLICATION INVESTED 100.01.005
CURRENT PELING DATE: 2002-01.00
PRIOR PELICATION INVESTED 1095-07-03
PRIOR PELICATION INVESTED 1095-07-03
PRIOR PELICATION INVESTED 1095-07-03
PRIOR PELICATION INVESTED 1097-07-03
PRIOR PELICATION INVESTED 1097-07-04
PRIOR PELICATION INVESTED 1097-07-04
PRIOR PELICATION INVESTED 1097-07-24
PRIOR PELICATION INVESTED 1098-07-24
PRIOR PELICATION INVESTED 1097-07-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/10091085
Publication No. US20020146772Al
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ) ORGANISM: Homo sapiens
US-10-091-085-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ford, John APPLICANT: Mulero, Ju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-091-085-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                            ô
                                                                                                                                                                                                                                                                                                                                   121 KKTPVVLKATAGIRLEPEHKAKALLFBVKBIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEXTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEABWIFGGVKYQYGGNQSGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 EPCYABVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYBKGGILKVBDFBRKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 EPCYABULRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1641 EVCDNLENFTSGSPFLCMDLSYTTALLXDGGGPADSTVLQLYKKANTETGMALGAFFFHL 420
165 EVCDNLENFTSGSPFLCMDLSYTTALLXGGGGPADSTVLQLYKKVNNTETGMALGAFFHL 420
165 EVCDNLENFTSGSPFLCMDLSYTTALLXGGGGPADSTVLGUTKKVNNTETGMALGAFFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 KKTPVVLKATAGLRLIPBHKAKALLFBVKEIFRKSPFLVPKGSVSIMDGSDBGILAWTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                1 MATSWGTVFFMIVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                           1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWPEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT PROJECT O'MLIO
APPLICANT PROJECT O'MLIO
APPLICANT PROJECT O'MLIO
APPLICANT VENDO, GOOSGO
TITLE OF INVESTION 'NECHOGS and Materials Relating to CD39-Like
TITLE OF INVESTION 'NECHOGS and Materials Relating to CD39-Like
TITLE OF INVESTION 'NECHOGS and Materials Relating to CD39-Like
TITLE OF INVESTION 'NECHOGS and Materials Relating to CD39-Like
FITLE OF INVESTION 'NECHOGS and Materials Relating to CD39-Like
FITLE OF INVESTION WOMERS 1997-100
PRICE REPLICANTON WOMERS 1997-100
PRICE REPLICATION WOMERS 1997-000
PRICE REPLICATION WOMERS 1997-000
PRICE RELICATION WOMERS 1997-000
PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE PRICE
                                                                                            0
Overy Match 100.0%; Score 2250; DB 12; Length 428; Best Local Similarity 100.0%; Pred. No. 1.5e-215. Metches 428; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5, Application US/10286926
Publication No. US20030175752A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421 LOSLGISH 428
```

RESULT 2 US-10-286-926-5

LENGTH: 428

Thu Nov 13 06:30:34 2003

```
APPLICANT: World-Good Only of the Programmer of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 NPLTGQLAGHRQETVGTLDLGGASTQLTFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
181 NPLTGQLHGRETVGTLDLGGASTQLTFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
181 NPLTGQLHGRETVGTLGLGGASTQLTFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 BPCYABULAVVRGKIAOPEEVQRGSFYAFSYYDRAVDTDMIDYBKGGILKVEDFERKAR 360
301 BPCYABVLAVRGKIAOPEEVQRGSFYAFSYYDRAVDTDMIDYBKGGILKVEDFERKAR 360
302 BPCYABVLAOPEEVQRGSFYAFSYYDRAVDTMIDYBKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 EVCDNLENFTSGSPELCMLSYTTALIADGEGRADSTVLQLTKKVNNITTGALGATFEH, 420
361 EVCDNLENFTSGSPELCMDLSYTTALIANGGERADSTVLQLTKKVNNITTGAALGATFEH, 420
361 EVCDNLENFTSGSPELCMDLSYTTALIANGGERADSTVLQLTKKVNNITTGAALGATFEH, 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                       61 RIHVYTEVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                               121 KKTPVVLKATAGLRLLPEHKAKALLPEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                       241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 2250; DB 14; Length 428; 100.0%; Pred. No. 1.5e-215; tive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Application US/10092063
Publication No. US20020173005A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
US-10-092-063-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-092-063-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 NPLIGOLHGHROETVGTLDLGGASTQITFLPQFEKTLBQTPRGYLTSFEMFNSTYKLYIH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 EVCDNIEBRETSGSPEICMDLSYITALLKOGGPADSTVLÖLTKKYNNIETGARLGAFFHL 420 [HILL] [HI
                                                                                                                                                                                                                                                                                                                                               61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                 61 RIHVYTEVQKMPGQLPILEGEVEDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (21 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EPCYAEVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 EPCYAEVLRYVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                      1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 NFLTGQLHGHRQETVGTLDLGGASTQTTFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: FOCK, JOHN
TITLE OF HUNBATTON: AND MATERIALS RELATING TO NOVEL CD39-LIKE
TITLE OF HUNBATTON: FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDES
FOLYEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
100.0%; Score 2250; DB 14; Length 428;
Bost Local Similarity 100.0%; Pref. No. 1.5e-215;
Matches 43, Conservative O; Mismatches 0; Indels 0;
0; Indels
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TILE RESERRINGE: 2110/45054.
CURRENT APPLICATION HUMBER: U8/10/091,085
CURRENT PLIMO AND TRIT. 1000-10-05
REGOR APPLICATION WINBER: U8/10/091,085
REGOR ALTHON DIRT. 1099-00-091
REGOR APPLICATION WINBER: U8/10/091,19
REGOR PLIMO DIRT. 1999-00-10/10/10/091
REGOR PLIMO ANDE: 1999-00-16
REGOR PLIMO ANDE: 1999-00-16
REGOR PLIMO BORTE: 1999-00-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 09/244,444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5, Application US/10091085
Publication No. US20020146772A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 1999-02-04
NUMBER OF SEQ ID NOS: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Ver. 2.0
Matches 428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
US-10-091-085-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
US-10-091-085-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

셤

```
121 KKTPVVLKATAGURLLDBEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                      181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                    241 SYLGPGIKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                301 EPCYABVLRVVRGKIHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                   61 RIHVYTPVQKMPCQLPILBGEVFDSVKPGLSAFVDQPKQGAETVQGLIEVAKDSIPRSHM 120
                                                                                                                                                            241 SYLGFGLKAARLATLGALETEGTDGHTPRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLBVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFBGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                      301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: PROAD, OADING
APPLICANT: PROAD, OADING
APPLICANT: PROAD, OADING
APPLICANT: PROAD, OADING
APPLICANT: PROAD, OADING
APPLICANT: PROAD, OADING
APPLICANT: PROAD, OADING
TITLE OF INVERTION: POLYperciads
TITLE OF INVERTION: POLyperciads
FILE REPRESENCE: 281.0/3645/COM
CORRENT APPLICATION MODERS: UG/10/286.926
PROOR PLICATION NUMBER: 09/481.238
PROOR APPLICATION NUMBER: 09/481.238
PROOR APPLICATION NUMBER: 09/481.238
PROOR APPLICATION NUMBER: 09/20/368
PROOR RELICATION NUMBER: 09/20/349
PROOR RELICATION NUMBER: 09/20/2444
PROOR PLICATION NUMBER: 09/20/2444
PROOR PLICATION NUMBER: 09/20/2444
PROOR PLICATION NUMBER: 09/20/2444
PROOR PLICATION NUMBER: 09/20/24444
PROOR PLICATION NUMBER: 09/20/24444
PROOR PLICATION NUMBER: 09/20/24444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 99.3%; Score 2235; DB 12; Length 428; Bett Local Similarity 99.3%; Pred. No. 48e-214, Merche 3Merche 31; Indels 0; Manche 31; Conservative 0; Mismatches 3; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 09/118,205
PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ 1D NOS: 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 7, Application US/10286926
; Publication No. US20030175752A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-286-926-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-286-926-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                         셤
                                                                                                                                                            ò
                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLIANCE AT PRINCE OF THE PROPERTY OF THE PROPERTY OF NOVEL CD39-LIKE POLYBEPTIDES FILTE OF INVESTORY NOTICES AND MATERIALS RELATING TO NOVEL CD39-LIKE POLYBEPTIDES FILTE OF INVESTORY PRINCES AND MATERIALS RELATING TO NOVEL CD39-LIKE POLYBEPTIDES FILTE OF THE PRESERVER. 23.10.10.10.20.20.3.0.5

CURRENT FILING DATE: 2002-03-05

PROR PRILING DATE: 2002-03-05

PROR PRILING DATE: 1093-02.0.1.1

PROR PRILING DATE: 1093-02.0.1.1

PRICE FILING DATE: 1093-02.0.1.1

PRICE FILING DATE: 1093-02.0.1.4

PRICE FILING DATE: 1093-02.0.1.4

PRICE FILING DATE: 1093-02.0.1.4

PRICE FILING DATE: 1093-02.1.4

PRICE FILING DATE: 1093-07.14

                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 BVCDNLENFTSGSPFLCMDLSYITALLKDGGGRADSTVLQJTKKVNNIETGWALGAFFEL 420
361 SVCDNLENFTSGSPLCMDLSYITALLKDGGGFADSTVLGJTKKVNNIETGWALGAFFEL 420
361 SVCDNLENFTSGSPELCMDLSYITALLKDGGGFADSTVLGJTKKVNNIETGWALGAFFH 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 RIHVYŢFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRGHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSV9IMDGSDEGILAWVY 180
                                                                                                                                                                                                                                                                                                                                                  301 EPCYARULRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                   NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                41 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGSVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                    301 BPCYAEVLRVVRGKLHQPBEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                      121 KKTPVVLKATAGLRLLPBHKAKALLFEVKBIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                241 SYLCFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFBGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 2250; DB 14; Length 428; 100.0%; Pred. No. 1.5e-215; tive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 5, Application US/10092063 Publication No. US20020173005A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-092-063-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-092-063-5
                                                                                                                                           183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                           ð
                                                                                                                                                                                         å
                                                                                                                                                                                                                                                ò
```

us-09-905-744b-6.rapb

ಕ್ಷ 윱 ò g à 윱 ò a à

à

```
APPLICANT: FOR-1, JOHN
APPLICANT: MILEOL, JULIA
TITLE CON JUNEATO, JULIA
TITLE CON JUNEATO, JULIA
TITLE CON JUNEATO, JULIA
TILE REPERENCE JULIA
CURRENT TILLO DATE: JULIA JULI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 NFGTGQLHGHROETVGTLDLGGASTQLTFLPQFEKTLEQTPRGYLFSPEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 NPLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                           301 EPCYABULRUVRGKLHQPEEVQRGSFYAFSYYYDRAUDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361 BVCDNLENFISGSPFLCMDLSYITALLKDGRGFADSTVLQLTKKVNNIEJGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 KKTPVVLKATAGLRLLPEHKAKALLFEVKBIFRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYOYGGNQRGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 KKTPVVLKATAGLRLLPEHKAKALLPEVKEIFRKSPPLVPKGSVSIMTGQDEGIFAWYTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MAISWCTVFFMLVVSCVCSSAVSHRNQQTWFEGIFLGSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.3%; Score 2235; DB 14; Length 428; 99.3%; Pred. No. 4.8e-214; Live 0; Mismatches 3; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DURTE: 1995-07-16
PRIOR APPLICATION NUMBER: 09/250, 286
PRIOR FILING DURTE: 1992-07-16
PRIOR FILING DURTE: 1992-07-16
PRIOR PRILICATION NUMBER: 09/244, 444
PRIOR PLILING DATE: 1999-02-04
PRIOR PLILING DATE: 1999-02-04
PRIOR PLILING DATE: 1999-07-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DAFE: 1998-07-16
NUMBER OF SEQ ID NOS: 39
SOFTWARE: PACENILIN Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sequence 7, Application US/10092063
; Publication No. US20020173005A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 425; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-092-063-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-092-063-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       â
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 RIHVYTFVQKAPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFBMFNSTYKLYTH 240
                                                                                121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWTV 180
                                                                                                                                            12) KKTPVVLKATAGLRLLPBHKAKALLFBVKEIFRKSPFLVPKGSVSIMTGODEGIFAWTV 180
                                                                                                                                                                                                                                                                                                                                 181 NFLIGGLAGHROETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMPNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                        241 SYLGFGLKAARLATLGALBTEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 SYLGEGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQSGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 BPCYABULRUVRGKLHOPBBVORGSFYAFSYYYDRAVDTDMIDYBKGGILKVEDFBRKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 EPCYABVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 EVCDNLENFISGSPFLCMDLSXITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 EVCDNLENFTSGSPPLCMDLSYITALLKDGFGPADSTVLQLTKKVNNIFTGHANGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MATSWGTVFFMLVVGCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MAISWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PARTICLE REPERBNCE 7. APPLICATION US/10091085
PRIJICATION NO. UGGS702014677A1.
PREJICATIN POREJ 100H
APPLICATIN POREJ 100H
TITLE OF INVESTICION METHODS AND MATERIALS RELATING TO NOVEL CD39-LIXE
TITLE OF INVESTICION POLYREPTIDES
CURRENT PRILIAS 30110/35/61
CURRENT PRILIAS 30110/35/61
CURRENT FILINS 3011E: 2007-67-70
CONTRENT PRILIAS 3011E: 2007-67-70
CONTRENT PRILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99.3%; Score 2235; DB 14; Length 428; 99.3%; Pred. No. 4.8e-214; trive 0; Mismatches 3; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRICE A. PAGE CONTROL ON VANCE CONTROL OF CONTROL OF CONTROL ON VALUE CONT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 425; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DRGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-091-085-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-091-085-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
```

1.0

1

윱 ò Sp. ò

181	NESSULT 11   11   12   12   13   13   13   13	Db 181 NFJTOQJAHRANGENOTLDJAGANTOTIFPLOGEKTIJAQTNEGSTITSETENENTH 240  Qy 241 SYLGFGIKAARIATIGALETEGTIGAHTPRSACLPRHIBABNIFGGVKYQYGGNQEGEVG 300  Db 241 SYLGFGIKAARIATIGALETEGTIGAHTPRSACLPRHIBABNIFGGVKYQYGGNQEGEVG 300
QY         241 SYLGEGIKAARLATLGALETEGTDGHTFREACLERWILEABNITGGWYKQYGGNDEGEVGF 300           DD         241 SYLGEGIKAARLATLGALETEGTDGHTFREACLERWILEABNITGGWYKQYGGNDEGEVGF 300           DD         241 SYLGEGIKAARLATLGALETEGTDGHTFREACLERWILEABNITGGWYKQYGGNDEGEVGF 300           QY         310 EPCYMARLAYDGGKHQPEBVQRGSTYARSYYDGANDTDYBKGGILKYDEBREKRA 360           DD         301 EPCYMARLATLGPEBCQRGSTYARSYYDGANDTDYBKGGILKYDEBREKRA 360           QY         361 EVCDNIETERSGSPLCMDLGYTAALLADGANDTDYRKGGILKYDEBREKRA 360           DD         361 EVCDNIETERSGSPLCMDLGYTAALLADGANDTDYRKYDNIETGMALGATFHL 420           DQ         421 LQSLGTSH 428           DD         421 LQSLGTSH 428           DD         421 LQSLGTSH 428	SULT 10 10-286- Separate Separ	

셤 à a

```
161 KGSVSTNDCSDBGTLANVTVNFLTCQLIGGRETVCTLDLGGASTQTTFELPQTEKTLEOF 220
SSVSTNDSDBGTLANVTVNFLTCQLIGGRETVGTLGLGGASTQTTFELPQTEKTLEOF 220
SSVSTNDSDBGTLANVTVNFLTCQLGGHRQETXGTLDLGGASTQTTFELPQTEKTLEOF 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    341 MIDYEKGOILKVEDFERKAREVCDMLENFTSGSPFLCMDLSYITALLKDGFGRADSTVLQ 400
243 MIDYEKGOILKVEDFERKAREVCDMLENFSGSSPFLCMDLSYTALLGGFGRADSTVLQ 302
243 MIDYEKGOILKVEDFERKAREVCDMLENFSGSSPFLCMDLSYTALLGGFGRADSTVLQ 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Xaa equals any of the maturally occurring L-amino acids NAME/RET: 5ITE COCKTION: (124) COCKTION: (124)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-925-299-876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 AETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVP 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221 PRGYLTSFEMFNSTYXLYTHSYLGFGLKAARLATLGALSTEGTDGHTFRSACLPRWLEAE 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           123 PXGYLTSFEMFNSTYXLYTHSYLGFGLKAARLATLGALETEGTDGHTFRSAXLPRXLEAE 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        281 WIFGGVKYQYGGNGEGEVGFEPCYABVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTD 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 ARAVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVP 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73.8%; Score 1660; DB 9; Length 330; 97.3%; Pred. No. 7.2e-157; Live 0; Mismatches 9; Indels
                                                                                                                                                                                                                                         ALTER OWN INTERNATION OF A PROCESS OF A PROC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                401 LTKKVNNIETGWALGATFHLLOSLGISH 428
                                                                                                                                     Sequence 876, Application US/09925299
Patent No. US20020055627A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 97.3%
Matches 319; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: SITE
LOCATION: (138)
OTHER INFORMATIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: SITE
LOCATION: (174)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (194)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (106)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (64)
                                                                                                                    US-09-925-299-876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60 RIHVYTFVQKTAGQLPFLEGEIFDSVKPGLSAFVDQPKQCABTVQELLEVAKDSIPRSHW 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180 NFLIGGLHGRGQZTVGTLDLGGASTQITFLPQPEKTLEQTPRGYLTSFEMFNSTFKLYTH 239
61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGARTVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 NFLTGQLHGHRQSTVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240 SYLGFGLKAARLATLGALEAKGIDGHTFRSACLPRWLEABWIFGGVKYQYGGNQEGEMGF 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 EPCYAEVLRYVRGKLHQPEEVQRGSFYAFSYYYDRAVDTOMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATPHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MATSWGAV-FMLIIACVGSTVFYREQQTWFEGVFLSSMCPINVSAGTFYGIMFDAGSTGT 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81.7%; Score 1837.5; DB 14; Length 465;
84.0%; Pred. No. 2.4e-174;
trive 25; Mismatches 39; Indels 3;
                                                                                                                                                                                          361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLO 400
                                                                                                                                                 361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQ 400
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 39, Application US/10092063
Publication No. US20020173005A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   353; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , ORGANISM: Mus musculus
US-10-092-063-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                               US-10-092-063-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                            RESULT 12
```

0; Gaps

g g q 셤 ò 윱 à 윱

ò ò ò us-09-905-744b-6.rapb

ø

Page

```
448 SKVLKLTRKIDNVETSWALGAIFHYIDSL 476
RESULT 15
US-10-286-926-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161 KGSVSIMDGSDEGILAMVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQT 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63 KGSVSIMDGSBEGILAAVTVNFLTGQLAGHRQETXGTLDLGGAXTQITFLPQFEKTLEQT 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123 PXGYLTSFEWFNSTYXLYTHSYLGFGLKAARLATLGALETEGTDGHTFRSAXLPRXLEAE 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WIFGGVKYOYGGNOEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDŢD 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     341 MIDYEKGGILKVEDFERKAREVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQ 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOCMYTON: (97) MARKET OF THE NATURAL OCCUPTING L-amino acids MARKET (TOTAL) LOCKTON: (106)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-925-299-876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 AETVÇGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPPLVP 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221 PRGYLTSFEMFNSTYKLYTHSYLGPGLKAARLATLGALETEGTDGHTFRSACLPRWLEAE 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      183 WIFGGVKYQYGXNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTD 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243 MIDYEKGGILKVEDFERKAREVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLO 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JON: (138)
INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 ARAVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVP 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 73.84, Score 1666, DB 11; Length 330; Best Local Similarity 97.38; Pred, No. 7.2e-157, Marches 319; Conservative 0; Mismatches 9; Indels 0;
                                                                                                                                                                                                                      APPLICANT. Rosen et al. Acids, Proceins and Antibodies FILE REPRESENCE: ALLO SELLE ACIDS, PROCEIUS ACIDS, PROCEIUS CONTRANCES ACIDS 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               401 LTKKVNNIETGWALGATFHLLOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          303 LTKKVNNIETGWALGATFHLLQSLGISH 330
                                                                          Sequence 876, Application US/09925299
Publication No. US20030040617A9
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMAT
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SITE
                                     US-09-925-299-876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION
```

욢 원 셤 à 셤 à g à

ò ò ò

```
389 AAGVGLIDAEKGGSLVVGDFELAAKYVCRTLETQPQSSPFSCMDLTYVSLLLQE-FGFPR 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             157 FLVPKGSVSIMDGSDBGILAWVTVNPLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          209 FLVGDDCVSINNGTDEGVSAWITINFLTGSLKTPGGSSVGMLDLGGGSTQIAFLPRVEGT 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        217 LBQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALBTE-GTDGHTFRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYDR 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329 SPKGEWEHAEVTYRVSGQKAAASLHELCAARVSEVLONRVHRTEEVKHVDFYAFSYYVDL 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   336 AVDTDMIDYEKGGILKVEDFERKAREVCDNLENFISGSPFLCMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40 PINVSA --- STLYGIMPDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDO 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Omery Match
44.4% Score 999, DB 12, Length 464;
Sect Lotal Sizalarity 22.4% Pred No. 1.1e.90;
Matches 24, Conservative 56; Mismatches 123; Indels 6; Gaps
                                                                                                                                                                                             TITLE OF INVESTION Methods and Materials Relating to CD39-Like ITITLE OF INVESTION: POLYPECIAGE PILE TREBENCE. 2011/545/5COM CORRENT APPLIANCE NOVES 105/256,926 CORRENT FILLING DATE. 2002-11-01 PRIOR PRILING NAMES. 2015-13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              396 STVLOLTKKVNNIETGWALGATFHLLQSL 424
                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR PELICATION WINGER: 09/401,238
PRIOR FILING MATE: 2000-01-11
PRIOR PELICATION WINGER: 09/470,265
PRIOR PELICATION WINGER: 09/470,265
PRIOR PELICATION WINGER: 09/470,265
PRIOR PELICATION WINGER: 09/50036
PRIOR PELICATION WINGER: 09/50036
PRIOR PELICATION WINGER: 09/513447
PRIOR PELICATION WINGER: 09/4444
PRIOR APPLICATION WINGER: 09/4444
PRIOR APPLICATION WINGER: 09/4444
PRIOR APPLICATION WINGER: 09/4444
PRIOR APPLICATION WINGER: 09/16,206
PRIOR APPLICATION WINGER: 09/16,306
Sequence 27, Application US/10286926 Publication No. US20030175752A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Ver. 2.0
                                                                                                 APPLICANT: Ford, John
APPLICANT: Mulero, Julio
APPLICANT: Yeung, George
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
CRGANISM: Homo sapiens
US-10-286-926-27
```

Search completed: November 13, 2003, 06:26:02 Job time : 45 secs

Thu Nov 13 06:30:34 2003

us-09-905-744b-6.rai

```
61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MATSWGTVFPMLVVSCVCSAVSHRNQQTRPEGIFLSSMCPINVSASTLYGIMPDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-608-285A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 3
LENGTH: 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                              (without alignments)
862.336 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a
core greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 9, 1 Sequence 3, 2 Sequence 3, 2 Sequence 3, 3 Sequence 3, 4 Sequence 5, 4 Sequence 7, 5 Sequence 7, 5 Sequence 7, 5 Sequence 7, 5 Sequence 25, 5 Seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                            1 MATSWGTVFFMLVVSCVCSA.....ETGWALGATPHLLQSLGISH
                                                                                                                                        2003, 06:17:36 ; Search time 21 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Issued Patents AA/A/SaA/Sa.COMB.pep;

// Ggg2-6/pcddata/A/SaA/Sa.COMB.pep;

// Ggg2-6/pcddata/A/SaA/Sa.COMB.pep;

// Ggg7-6/pcddata/A/SaA/Sa.COMB.pep;

// Ggg7-6/pcddata/A/SaA/Sa.COMB.pep;

// Ggg7-6/pcddata/A/SaA/Sa.COMB.pep;

// Ggg7-6/pcddata/A/SaA/Sa.COMB.pep;

// Ggg7-6/pcddata/A/SaA/Sa.COMB.pep;
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -09-608-285A-60
-09-129-112-9
-09-129-112-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Notal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-129-112-15
US-09-129-112-2
                                                                                                                                                                                                                                                                                                                                                                                                  328717 seqs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                           protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                      Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                       US-09-905-744B-6
2250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length DB
                                                                                                                                           November 13,
                                                                                                                                                                                                                                                                                                                                   BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999.33
999.33
999.33
999.33
999.33
999.33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2104
1837.5
1832.5
                                                                                                                                                                                                                                                                 Perfect score:
                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2104
                                                                                                   OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database :
                                                                                                                                                                                                                                                                                           Seguence:
                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Result
```

nce z, Appli	sednence	US-08-447-642-2	2	696	4.1	93	45
	Sednence	US-08-284-941-2	~	969	4.1	93	44
5 6	sednence	US-09-134-001C-4383	4	206	4.3	96	43
	Sequence	US-09-137-077-2	m	535	4.	98.5	42
9	Sednence	US-09-252-991A-20854	4	339	4.7	105.5	41
127	sednence	US-08-565-386-12	ц.	553	4.7	106.5	40
	sedneuce	US-09-240-639-14	4	154	7.7	174	33
9	sednence	US-09-240-639-15	4	153	8.0	179	38
9	sednence	US-09-240-639-16	4	150	8.0	180.5	33
3:	Sednence	US-09-240-639-13	4	153	8.3	186	36
1	Sednence	US-09-240-639-17	4	148	10.4	234	35
nce 4, Apply	Sednence	US-09-240-639-4	4	529	15.4	347.5	34
٠,	Sednence	US-08-930-921-1	m	510	15.6	351	33
'n,	Sednence	US-09-557-800C-55	4	205	15.6	351	32
1	edneuce	US-09-240-639-11	4	454	19.8	446.5	31
, ,	Sednence	US-09-240-639-12	4	473	20.8	467.5	30
nce 10, App	Sednence	US-09-240-639-10	4	455	21.7	489	53
	Sednence	US-09-129-112-15	4	462	21.8	491.5	58

SE	
ä	
Ř	
ă	
a,	

```
0; Gaps
                                                                                                                                                                                                           APPLICANT: Ford, John
APPLICANT: Miletor, Julio
APPLICANT: Miletor, Julio
TITHE OF INVENTION WETHOUS AND MATERIALS RELATING TO CD39-LIKE
TITHE OF INVENTION: POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
100.0%; Score 2250; DB 4; Length 428;
Best Local Similarity 100.0%; Pred. No. 3.9e-248
Matches 428; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THILE OF UNINERLOW FOLLOWS THE REPERSION OF A STANDARS TO BE STANDARS TO STANDARS
Sequence 3, Application US/09608285A Patent No. 6335013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
```

ö

ò

us-09-905-744b-6.rai

```
121 KKTPVVLKATAGLALPEHKAKALLFEVKETFRKSPFLVPKGSVGIMGSDEGILMWYV 180
121 KKTPVLKATAGLALPEHKAKALFEVKETRKSPFLVPKGSVGIMGSDEGILMWYV 180
122 KKTPVLKATAGLALPEHKAKALFEVKETRKSPFLVPKGSVGIMGSDEGILMWYV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 EVCDNLENPTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIFTGMALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 KKTPVVLKATAGLRLLPEHKAKALLPEVKEIPRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                   61 RIHVYTFVQKAPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 NFLTGOLHGHROETVGTLOLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 EPCYAEVLRVVRGKLHQPZEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 RIHUYTPVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 RIHVYTRVQKMPGQLPILLEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 KKTPVVLKATAGLRLLPEHKAKALLPEVKEIPRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
1 MATSWOTVPEMLVVSCVCSAVSHRNQOTWFEGTELSSNCPTNVSASTLYOTHFPDAGSTOT 60
1 MATSWOTVPEMLVVSCVCSAVSHRNQOTWFEGTELSSNCPTNVSASTLYOTHFPDAGSTOT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL, INFORMATION:
APPLICANT: Chadwick, Brian Paul
APPLICANT: Friedhauf, Anna-Waria
APPLICANT: FRIEDHAUF
APPLICANT: APPLICANT: POLYBERTIDES AND NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 2250; DB 4; Length 428; 100.0%; Pred, No. 3.9e-248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: 9598-066
CURRENT APPLICATION NUMBER: US/09/240,639
CURRENT FILING DATE: 1998-01-29
NUMBER OF SEQ ID NOS: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6, Application US/09240639 Patent No. 6350447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-240-639-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-240-639-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 NFLIGGLIGHROFTVGTLDLGGASTQITFLFOFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                      181 NFLIGGLHGHRQETVGTLDLGGASTQITFLPQPEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEABWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLFRWLEAEWIFGGVKYQYGGNQEGEUGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 EPCYABVLRVVRGKLHQPEBYQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLBVAKDSIPRSHW 120
                                                                                                                                                                                                         121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                       121 KKTPVVLKATAGLRLLPBHKAKALLFBVKBIFRKSPFLVPKGSVSINDGSDBGILAWTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5, Application US/09608285A
Peneric M. 6539013
Peneric M. 66590
Peneric 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%; Score 2250; DB 4; Length 428; Best Local Similarity 100.0%; Pred. No. 3.9e-248 Matchés 428; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHENCERT APPLICATION NOMES. PS, (9) (606, 285A CORRENT APPLICATION NOMES. PS, (2) (606, 285A CORRENT APPLICATION NOMES. PS, (2) (606, 285A CORRENT APPLICATION NOMES. PS, (2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) (606, 2) 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRICE APPLICATION NUMBER: 09/244,444
PRICE FRINKS DEET: 1992-02-04
PRICE APPLICATION NUMBER: 09/122,49
PRICE APPLICATION NUMBER: 09/112,49
PRICE PRILING DATE: 1998-07-34
PRICE FILING DATE: 1998-07-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 60
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-608-285A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
US-09-608-285A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 5
LENGTH: 428
                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
```

9

Gaps

윱 à g ò q ò

```
PREMICANT ON CASTON OF CAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 XXTPVVLKATAGLELLPEHKAKALLFEVKEIPRKSPFLVPKGSVSIMDGSDEGILAWYTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAFWIPGGVKYQYGGNQEGEVGF 300
241 SYLGFGLKARLATLGALETEGTDGHTPRSACLFRWLEAFWIFGGVKYQYGGNQEGEWGF 300
242 SYLGFGLKARLATLGALETEGTDGHTPRSACLFRWLEAFWIFGGVKYQYGGNQEGEWGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BPCYABVLRVVRGKIHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 EPCYAEVLKVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EVCDNLENPTSGSPPLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 EVCDNLENFTSGSPFLCMDLSYITALLKDGRGRADSTVLQLTKKVNNIETGMALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4; Length 428;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 2250; DB 4; Beet Local Similarity 100.0%; Prod. No. 3.9e-248; Matches 428; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5, Application US/03350836B
Patent C. 38664
GENERAL INFORMATION:
APPLICANT: FORCY, John
APPLICANT: ROTE Julio
                                                                                                                 Sequence 3, Application US/09350836B; Patent No. 6387645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 6
US-09-350-836B-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-350-836B-3
                                                                                US-09-350-836B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 KKTPVVLKATAGLALLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 BPCYAEVLRVVRGKLHQPEBVQRGSFYAFSYYDRAVDTDMIDYEKGGILKVEDPERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EVCONLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIBTGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                               SYLGFOLKAARLATLGALETEGTDGHTPRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 EPCYABULRUVRGKLHQPEBUQRGSFYAFSYYYDRAVDTDMIDYBKGGILKVBDFBRKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                              241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                      301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MAISWGIVFFMLVVSCVCSAVSHRNQQIWFEGIFLSSMCPINVSASTLYGIMFDAGSIGT
241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROGRAMMENT FILED NOT PROPERTION THE RELATING TO CD39-LIKE TITLE OF INVESTMENT ON PODE 1998-1068

APPLICANT FILED SHOW FOLKERING AND COMPOSITIONS RELATING TO CD39-LIKE TITLE OF INVESTMENT POLYMENT POLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match 100.0%; Score 2250; DB 4; Length 428; Best Local Similarity 100.0%; Pred. Mo. 3.9e-248; Matches 428; Conservative 0; Mismatches 0; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOSIGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOSLGISH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-240-639-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-240-639-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
```

g ò g ò 윱 셤 à 용 à ò 셤 à

ò

ò

```
61 RIHVYTEVQKMPGQLPILEGEVEDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 RIHVYTEVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASOLY 0, -86-56

REQUARDO S. SAPRIJACTION US/09370265

PRECENT NO. 644774

GREENERAL INFORMATION:

TITLE OF INVENTION: WETEROL AND MATERIALS RELATING TO NOVEL CD39-LIKE

TITLE OF INVENTION: POLYMEPTICES AND WATERIALS RELATING TO NOVEL CD39-LIKE

TITLE OF INVENTION: POLYMEPTICES AND WATERIALS RELATING TO NOVEL CD39-LIKE

TITLE OF INVENTION: POLYMER: US/09/370, 265

CURRENY FALLICA DRATE: 1939-00-19

FARLIRE FILENER PRECISENT NOW WHORES: POT/10899/16180

FARLIRE FILENER FILENER PRECISENT NOW WHORES: 09/380, 266

FARLIRE FILENER PRECISENT NOW WHORES: 09/23, 447

FARLIRE FILENER PRECISENT NOW WHORES: 09/24, 444

FARLIRE FILENER PRECISENT NOW WHORES: 09/24, 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 KKTPVVLKATAGLRLLPEHKAKALLPEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 NFLIGQLHGHRQETVGTLDLGGASTQITFLPQPEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MAISWGIVFFMLVVSCVCSAVSHRNQQIWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 428;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%; Score 2250; DB 4; Sest Local Similarity 100.0%; Pred. No. 3.9e-248; Matches 428; Conservative 0; Mismatches 0;
     EARLIER FILTION DATE: 1997-0-7-0-7
EARLIER FILTION NUBER: 09/27/447
EARLIER FILTION DATE: 1992-0-3-1-9
EARLIER FILTION DATE: 1992-0-3-1-9
EARLIER FILTION DATE: 1992-0-3-1-9
EARLIER FILTION DATE: 1992-0-3-0-4
EARLIER FILTION DATE: 1998-0-3-6
EARLIER FILTION DATE: 1998-0-3-6
EARLIER FILTION DATE: 1998-0-3-6
EARLIER FILTION DATE: 1998-0-3-6
EARLIER PAILE PAILED DATE: 1998-0-3-6
EARLIER PAILED DATE: 1998-0-3-6
EARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; ORGANISM: Homo sapiens
US-09-370-265-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 LOSLGIŚH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 KKTPVVLKATAGLRLLPBHKAKALLPBVKEIFRKSPFLVPKGSVSIMDGSDBGILAMVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 NFLIGQLAGARQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 SYLGFGLKAARLATLGALETBOTDGHTFRSACLPRWLBABWIFGGVKYQYGGNQEGFUGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361 EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
TITLE OF THURPHION: METHODS AND WATERIALS RELATING TO NOVEL CD39-LIKE
TITLE OF THURPHION: DOLYMEDTIDES
TITLE REFERENCE: 23140/57210ES
TITLE REFERENCE: 23140/57210ES
TOTHERST PAPELLOKITON WHORES: 09/230,0368
CUTREST PAPELLOKITON WHORES: 09/234,47
PRIOR FILICATION NUMBER: 09/12/347
PRIOR PELLICATION NUMBER: 09/12/49
PRIOR PELLICATION NUMBER: 09/12/49
PRIOR PELLICATION NUMBER: 09/24/44
PRIOR PELLICATION NUMBER: 09/24/44
PRIOR PELLICATION NUMBER: 09/24/444

PRIOR PELLICATION NUMBER: 09/24/4444
PRIOR PELLICATION NUMBER: 09/24/4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-00-210-26-3

Bequence J. Application US/09370265

| Parent No. 6477021

| Parent No. 6477021

| Parent No. 6477021

| Parent No. 6477021

| APPLICANT: FOR JULIO

| TITLE OF INVENTION: FOLYPEPTIDES

| TITLE OF INVENTION: FOLYPEPTIDES

| CORRESPONDED: 2811/1529-96-09

| SARLINE FILING NATE: 1929-06-09

| SARLINE FILING NATE: 1929-06-16

| SARLINE FILING NATE: 1929-07-146

| SARLINE FILING NATE: 1929-07-146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MATSWGTVFFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMPDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Opery Match 100.0%; Score 2250; DB 4; Length 428; Best Local Similarity 100.0%; Pred. No. 3.9e.248 Shet Matchies 428; Conservative 0; Mramatches 0; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-350-836B-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

420

420

240

180

ö

ò ò g ઠે g ò a ò ద ò 셤 ò 윱 ò

```
61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 NFLTGQLHGHRQETVGTLDLGGASTQLTFLLQFEKTLEQTPRGYLTSFEKRNSTVKLYTH 240
181 NFLTGQLHGHRQETVGTLDLGGASTQLTFLQFEKTLEQTPRGYLTSFEKRNSTVKLYTH 240
181 NFLTGQLHGREYGTLDLGGASTQLTFLQFEKTLEQTPRGYLTSFEKNNSTVKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 SYLGFGLKAARLATLGALETBGTDGHTFRSACLPRWLEABWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301 BPCYAEVLRVVRGKLHOPEEVORGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 SPCYAEVLRVVRGKLHQPBEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDICINATING PORTAL OUT OF A PARTICIPATION OF A PAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 2250; DB 4; Length 428; 100.0%; Pred. No. 3.9e-248; ive 0; Mismatches 0; Indels 0
PRIOR PELINCA NUMBER: 09/122449
PRIOR FILING DATE: 1998-07-24
PRIOR FILING DATE: 1998-07-24
PRIOR FILING DATE: 1998-07-24
PRIOR FILING DATE: 1998-07-16
PRIOR PRIOR PRIOR DATE: 1998-07-16
PRIOR PRIOR PRIOR DATE: 1998-07-16
PRIOR PRIOR PRIOR DATE: 1998-07-16
PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 5, Application US/09557800C Patent No. 6476211
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-557-800C-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-557-800C-3
                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 RIHVYTFVQKWPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NFLTGQLHGHRQETVGTLDLGGASTQITPLPQPEKTLBQTPRGYLTSPEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSPEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EPCYAEVLRVVRGKLHQPEEVQRGSPYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDPERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 EVCDNLENFTSGSPFLCMDLSYITALKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EVCDNLENFTSGSPFLCMDLSYITALLKDGFGPADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MAISWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MAISWGIVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASILYGIMFDAGSTGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PARCENT NO. 6476211

GENERAL INTERPRETATION

PARTICULT FORT COUNTS

APPLICANT FORT COUNTS

APPLICANT FORT COUNTS

TITLE OF INTERTION NEEDER 18/99/57,800C

CHRENT PARLICATION NUMBER: 09/99/57,800C

CHRENT PARLICATION NUMBER: 09/370,865

PRIOR PARLICATION NUMBER: 09/370,865

PRIOR PARLICATION NUMBER: 09/370,865

PRIOR PARLICATION NUMBER: 09/370,865

PRIOR PARLICATION NUMBER: 09/370,965

PRIOR PARLICATION NUMBER: 09/370,465

PRIOR PARLICATION NUMBER: 09/370,465

PRIOR PARLICATION NUMBER: 09/370,465

PRIOR PARLICATION NUMBER: 09/370,467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 2250; DB 4;
100.0%; Pred. No. 3.9e-248;
ive 0; Mismatches 0;
       RADILER FILING DATE: 1999-02-04
ERALIER PILING DATE: 1999-07-24
ERALIER FILING DATE: 1999-07-24
ERALIER FILING DATE: 1999-07-16
ERALIER FILING DATE: 1999-07-16
MUNERS OF SEQ ID NOS: 100-07-07
SEQTIANE: PRIGHTING VEY: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Sequence 3, Application US/09557800C; Patent No. 6476211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.0
Matches 428, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
CRGANISM: Homo sapiens
US-09-370-265-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LÓSLGIŚH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-557-800C-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

```
181 NFLTGQLHGHRQETVGTLDLGGASTQITFLFQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSPEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 RIHVYTEVQRAPGQLPILLEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 RIHVXTFVQKMPGQLPILEGEVPDSVKPGLSAFVDQPKQGABTVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRHLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MAISWGTVFPMLVVSCVCSAVSHRNOQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 EPCYABVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 7 papel, cartion US/09350936B

PRICAMT FOR 4.00h

APELICANT FOR 4.00h

APELICANT FOR 4.00h

TITLE OF INVESTION HETHOS AND MATERIALS RELATING TO NOVEL CD39-LIKE

TITLE OF INVESTION HETHOS AND MATERIALS RELATING TO NOVEL CD39-LIKE

FILE SEPERANCE. 29110/35761

TOTAL SPECIAL STATE 1999-00-19

PRICA PAPLICATION WHERE IS 1999-00-19

RECORD FILING BATE. 1999-00-19

RECORD FILING BATE. 1999-00-11

RECORD FILING BATE. 1999-00-11

RECORD FILING BATE. 1999-00-11

RECORD FILING BATE. 1999-00-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.3%; Score 2235; DB 4; Length 428; 99.3%; Pred. No. 2e-246; ive 0; Mismatches 3; Indels
PRIOR PLINICATION NUMBER PCT/US99/16180
PRIOR PLINICATION NUMBER PCT/US99/16180
PRIOR PLINICATION NUMBER PO 09/201, 447
PRIOR PLINICATION NUMBER PO 09/201, 447
PRIOR PLINICATION NUMBER PO 09/201, 444
PRIOR PLINICATION NUMBER PO 09/201, 444
PRIOR PLINICATION NUMBER PO 09/201, 449
PRIOR PLINICATION NUMBER PO 09/12, 449
PRIOR PLINICATION NUMBER PO 100/12, 449
PRIOR PLINICATION NUMBER PO 09/12, 449
PRIOR PLIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 99.3%;
Matches 425; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-608-285A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-350-836B-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 RIHVYTFVQKWPGQLPILEGEVPDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 RIHVYTFVQKAPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 SYLGFGLKAARLATLGALETBGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 BPCYAEVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYBKGGILKVEDFBRKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EVCDNIENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MAISWGIVFFMLVVSCVCSAVSHRNQQIWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: WORTHLAND OUT OF THE STATE OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 428;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query March 100.0%; Score 2250; DB 4; Best Local Similarity 100.0%; Pred. No. 3.99-248; Marches 428; Conservative 0; Mismatches 0;
PRIOR FILING NATE: 1999-02-19
PRIOR PRILIGATION NUMBER: 09/12449
PRIOR FILING NATE: 1999-02-04
PRIOR PRILIGATION NUMBER: 09/24444
PRIOR PRILIGATION NUMBER: 09/18/205
PRIOR PILING NATE: 1999-02-04
PRIOR PRING NATE: 1999-02-16
PRIOR PRING NATE: 1998-07-16
SPECIFICATION NUMBER: 09/18/205
SPECIFICATION NUMBER: 02/18/205

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 7, Application US/09608285A Patent No. 6335013 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , ORGANISM: HOR
US-09-557-800C-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
US-09-608-285A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

ö

```
61 RIHVYTFVQXMPGQLPILBGEVFDSVKPGLSAFVDQPKQGAETVQGLLBVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHVYTFVQKMFGQLFILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKOSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 EPCYAEVLRVYRGKLHOPEEVORGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 EVCDNLENFTSGSPPLCMDLSYITALLKOGFGFADSTVLOLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLBQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 SYLGFGLKAARLATLGALETEGTKGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                         1 MAISWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                              1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFLITGOLHGHROETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FACEDIN ON 94 V6211.

GRENEL INFORMATION:
APPLICANT: Fock, John
APPLICANT: Fock, John
APPLICANT: Fock, John
APPLICANT: Wend, George
ITIES OF INVARIATION: Wenders and Materials Relating to CD39-Like
ITIES OF INVARIATION: Wenders and Materials Relating to CD39-Like
ITIES OF INVARIATION: POLYMENTED PROPERTIES
ITIES OF INVARIATION: POLYMENTED PROPERTIES
ITIES OF INVARIATION WORDER: 109/48,238
PRICE RELICATION INVARER: 109/48,238
PRICE RELICATION INVARER: 109/10.645
PRICE RELICATION INVARER: 109/10.645
PRICE RELICATION INVARER: 109/10.649
PRICE RELICATION INVARER: 109/10.644
PRICE RELICATION INVARER: 109/10.444
PRICE RELICATION INVARER: 109/10.4444
PRICE RELICATION INVARER: 109/10.4444
PRICE RELICATION INVARER: 109/10.4444
PRICE RELICATION INVARER: 109/10.4444
                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                             3; Indels
                                                                                                                                                                                                                                 Score 2235; DB 4;
Pred. No. 2e-246;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 7, Application US/09557800C
Patent No. 6476211
                                                                                                                                                                                                                                 Query Match
Best Local Similarity 99.3%;
Matches 425; Conservative C
NUMBER OF SEQ ID NOS: 37
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421 LOSLGISH 428
                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
US-09-557-800C-7
                                                                                       LENGTH: 428
                                                                                                                                                                          US-09-370-265-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 RIHYYTEVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGABTVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 KKTPVVLKATAGLRLLPBHKAKALLFBVKEIFRKSPFLVPKGSVSIMTGQDBGIFAWTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NFITGOLHGHRQETVGTLDLGGASTQITELPQFEKTLEQFPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BPCYABULRUVRGKLHOPEEVORGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EVCONLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GREATER AND THE CONTROLL OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                    Score 2235; DB 4; Length 428;
Pred. No. 2e-246;
0; Mismatches 3; Indels
         J998-07-24
1998-07-24
...... 09/244,444
    09/122,449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 7, Application US/09370265
Patent No. 6447771
GENERAL INFORMATION:
    PRIOR APPLICATION WHOBER: 09/12.
REIGN FLILMG DATE: 1998-07-24
PRIOR PATICATION WHOBER: 09/24
PRIOR FLILMG DATE: 1999-02-04
NUMBER OF SEQ ID NOS: 23
SOFTWARE: RetentIn Ver: 2.0
                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 99.3%;
Matches 425; Conservative
                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOSLGISH 428
                                                                                                                                                                                                               LENGTH: 428
                                                                                                                                                                                                                                                                                                  US-09-350-836B-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-09-370-265-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셞
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
```

ö

à 유 à g ò 셤 à 용 à g ò g à

```
61 RIHVYTPVOKMPGOLPILEGEVFDSVKPGLSAFVDOPKOGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 RIHVYTFVQKAPGQLPILBGEVPDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIFRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIPRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 KKTPVVLKATAGLRILPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWYTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            941 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MATSWGTVPPMLVVSCVCSAVSHRNQCTWFBGIFLSSMCPINVSASTLYGINFDAGSTGT 60
1 MATSWGTVPPMLVVSCVCSAVSHRNQCTWFBGIFLSSMCPINVSASTLYGINFDAGSTGT 60
1 MATSWGTVPPMLVVSCVCSAVSHRNQCTWFBGIFLSSMCPINVSASTLYGINFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 405;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQ 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361 BVCDNLBNFTSGSPFLCMDLSYITALLKDGFGFADSTVLO 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 93.5%; Score 2104; DB 4; Best Local Similarity 100.0%; Pred. No. 1.7e-231; Matches 400; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                completed: November 13, 2003, 06:24:36
PRIOR PRELICOYN WINNERS. 09/244,444
PRIOR FILING DATE: 1999-02-04
PRIOR PILING DATE: 1999-02-04
PRIOR PILING DATE: 1998-07-24
PRIOR PILING DATE: 1998-07-16
NUNBER OF END IN 058: 60
SOFTWARE: PATENTIN OWNER: 09/118,205
NUNBER OF END IN 058: 60
SEQ ID NO 25
ILENGTH; 405
                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens
US-09-608-285A-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Job time : 22 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGABTVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KKTPVVLKATAGLRLIPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMTGQDEGIFAWTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SYLGFGLKAARLATLGALETBGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 EPCYAEVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 BPCYAEVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYBKGGILKVEDFBRKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-004-60-28A-1-55

WEALDLANT: PockJ-Onlin

APPLICANT: PockJ-Onlin

APPLICANT: PockJ-Onlin

APPLICANT: PockJ-Onlin

APPLICANT: PockJ-Onlin

APPLICANT: Winder Order

APPLICANT: Winder Order

TITLE REFERENCE: 200-60-60-85A

TITLE REPRENCE: 200-60-60-85A

CURRENT PAPLICANTION NUMBER: US/95/60, 285A

CURRENT APPLICANTION NUMBER: US/95/60-85A

PRIOR PRILING DATE: 2000-60-50-86

PRIOR PLILAGE DATE ORDER

PRIOR 
                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                               Ouery Match 99.3%; Score 2235; DB 4; Length 428; Best Local Similarity 99.3%; Pred. No. 2e-246 Matches 425; Conservative ; Mismatches 435; Conservative ; Mismatches 33; Indels
          PRIOR FILING DATE: 1998-07-16
NUMBER OF SEQ ID NOS: 56
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 LOSLGISH 428
                                                                                                                                                                                                                          ORGANISM: Homo sapiens
US-09-557-800C-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 LOSLGISH 428
                                                                                                                                                          LENGTH: 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                          TYPE: PRT
```

윱

```
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
```

OM protein - protein search, using sw model

.....EIGWALGATFHILLQSLGISH 428 1 MATSWGTVFFMLVVSCVCSA... US-09-905-744B-6 2250 Perfect score: Title:

Movember 13, 2003, 06:08:47; Search time 18 Seconds (without algements) (without algements) 1118:191 Million cell updates/sec

Run on:

Gapop 10.0 , Gapext 0.5 BLOSUM62 Scoring table: Seguence:

Total number of hits satisfying chosen parameters: 127863 seqs, 47026705 residues Searched:

127863

Minimum DB seg length: 0 Maximum DB seg length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt 41:\* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the cotal score distribution.

## SUMMARIES

	Description	075356 homo sapien	G9wuz9 mus musculu	Q9qyc8 mesocricetu	O75354 homo sapien	_	P52914 pisum sativ			ä		٠.	P40009 saccharomyc		pos	Q9dbt4 mus musculu	рошо		_			Q9y513 homo sapien		rattus							Q05470 bacillus su		964	DOGRAFA havillie er
	di	HUMA	ENPS MOUSE	ENPS MESAU	ENP6 HUMAN	ENP6 RAT	NTPA PEA	GDA1 YEAST	APY SOLTU	YY4E CARRL	YBU4_CAEEL	ENP1 CHICK	YND1 YEAST	ENP1_MOUSE	ENP1 BOVIN	ENP4 MOUSE	ENP4_HUMAN	ENP1_PIG	ENP1 HUMAN	ENP1 RAT	ENP3_HUMAN	ENP2 HUMAN	ENP2_MOUSE	ENP2 RAT	ENP2_CHICK	NTP1 TOXGO	NTP2 TOXGO	NTP4 TOXGO	SELB MOOTH	VG1 SPV4	PKSL BACSU			THER RACST
	BB	-	-1	-	н	н	ب,	н	н	ч	-	н	-	ч	-	-	~	н	н	н	н	н	٦	٦	н	-	٦	4	,-1	Н	н	-	-	-
	Length	428	427	469	484	455	455	518	454	485	222	493	630	210	513	613	919	510	210	511	529	495	495	495	494	628	628	592	634	553	4427	1151	535	548
المامان	Match	100.0	88.6	85.9	44.4	43.8	21.7	21.5	19.8	17.2	17.1	17.0	16.5	16.4	16.2	16.0	15.9	35.6	15.6	15,5	15.4	15.1	13.8	13.4	13.4	6.2	6.1	5.8	5.0	4.7	4.6	4.5	4.4	4
	Score	2250	1994.5	1933.5	666	986	489	483.5	446.5	387.5	385	383	372	370	365	360.5	357	352	351	348.5	347.5	339.5	309.5	302.5	301.5	140	138	131	111.5		104.5	101.5	99.5	66
Doer	No.	-	2	m	4	5	vo	7	60	6	10	11	13	13	14	15	16	17	18	13	20	21	22	23	24	25	56	27	28	29	30	31	32	33

in -its way way

Cicebardough about								p98119 desmodus ro				
	PICI BRAKE	DPP3 YEAST	FAS1 YARLI	PAC4 HUMAN	ITN2 HUMAN	HEM6 CAUCR	GLYA_BORBU	URT1 DESRO	YPEW_ECO57	YPEW_ECOLI	RSP5_YEAST	WAPA_BACSU
	4	ч	~	н	~	H	н	н	н	н	-	Н
0	1220	711	2076	696	1696	290	417	477	434	434	809	2334
	4	4.3	4.2	4.1	4.1	4	4.0	4.0	4.0	4.0	4.0	4.0
:	6.6	96	95.5	93	93	92	91	91	06	06	89.5	89.5
	34	32	36	37	38	30	40	41	42	43	44	45

## ALIGNMENTS

N

DIPHOSPHOHYDROLASE 5.

à a g ð g g g

à

ò ò ò g à 음 ò 용

endoplasmic reticulum.";

```
This GWISG-ROW entry is copyright. It is produced through a collaboration between the societization copyright. Bioinformatics and the FMRD outseating with European Bioinformatics Institute. There are no testrictions on its use by mon-profit institutions as long as that content is in no way modified and this actement is now tempored upgage by and for commercial entities arguing all commercial commercial or send an ensit to licensesteb sub.och (see http://www.isb-sib.och/announce/
                                                                                                                                        Servance ruck dragsgruged and 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F -> L (IN REF. 1).
DGTLLQLTKKVNNIETGWALGATFHLLQSLGITS -> ERH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLTAHKESEQHROWLGLGGHLSPAPVSGHHOLRPSSTSEAC
ISEPVFSQEGVDSETFSDLSGKAWPETR (IN REF. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: LIKELY TO PROMOTE REGLYCOSYLATION REACTIONS INVOLVED GLYCOROTERIS FUNDENLARIC PRESTUGLIM. HER ENDOBLASHIC RESTUGLIM. HEROLYZES UDP. GDP AND IDP BUT NOT ANY OFHER MUCLEOSIDE DI., MONO- OR TRIPHOSPHATES, NOR FHIMMINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Přám. Přoliso; GDAI CD39,"1.
PROGYTE, BOQ1238; GDAI, CD3, VIPASE, FALSE NEO.
Hydroclase; fransmebrane; Glycoprotein; Cālcium; Magnesium; Būdoplasmic reticulum; Signal.......................
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleotide + phosphete.
- CORRICHE, REQUIRES CALCIUM AND MAGNESIUM.
- INSCRILLARE LOCATON: Endoplasmic reticulum lumen.
- ITSGUE SERZIFICITY: Ubiquito-mose N-LINKED GIYCANS.
- REGUE SERZIFICITY: Ubiquito-mose N-LINKED GIYCANS.
- REGUELARBONI OF TOTABLE HS REUTRADE.
- SHILLAMBRONS OF THE GOAL (CD39 NFPASE PAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- CATALYTIC ACTIVITY: A nucleoside diphosphate + H(2)0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BCTONUCLEOSIDE TRIPHOSPHATE DIPHOSPHOHYDROLASE 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24; Mismatches 25; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2F9DA2C342C55577 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88.6%; Score 1994.5; DB 1; 88.3%; Pred. No. 1.1e-152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:1321385; EntpdS.
InterPro; IPR000407; GDA1_CD39_NTPase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL, AF006482, AAC05181.1; -. EMBL, AJ238636; CAB45533.1; -. EMBL, AK002618; BAB22234.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427 AA; 47101 MW;
                                       EMBO J. 18;3282-3292(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 377; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nature 409:685-690(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PYROPHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             231
390
394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
E LA REL RESERVE RESERVE RESULT RESUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHVYTFVQKWPGQLPILLEGEVFDSVKPGLSAFVDQPKQGABIVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGARTVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=88119025, PubMed=9457681,
Chadwick B.P., Williamson J., Sheer D., Frischauf A.-M.,
"CDRA toxining and chromosomal mapping of a mouse gene with homology to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Trombetta R.S., Helenius A.; and nucleotide sugar utilization in the "Glycoprotein reglucesylation and nucleotide sugar utilization in the Georetory pathway. Identification of a nucleoside diphosphatase in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 SYLGFGLKAARLATLGALBIBGTDGHTFRSACLFRWLEABWIFGGVKYQYGGNQBGBVGF
                                                                                                                                                                                                                                                                                                                                                                                               1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEXTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 EPCYABVLRVVRGKLHQPEBVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDPERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONITEGO-2001 (Riel, 40, Created)
15-077-2001 (Riel, 40, Created)
16-077-2001 (Rel, 40, Last sequence update)
16-077-2001 (Rel, 40, Last annoteticon update)
16-07-2001 (Rel. 40, Last annoteticon update)
16-07-2001 (Rel. 40, Rel. 40,
                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa, Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus
                          (GLCNAC. ..) (POTENTIAL) (GLCNAC. ..) (POTENTIAL) (GLCNAC. ..) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A., SUBCELLULAR LOCATION, AND CHARACTERIZATION
                                                                                                                                                                                                                                   Score 2250; DB 1; Length 428;
                                                                                                                     LINKED (GLCNAC. . .) (PC
830437A155DE4DDD CRC64;
                                                                                                                                                                                                                                                                          Pred. No. 3.3e-173;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  427 AA.
                          N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=99298181; PubMed=10369669;
                                                                                                                                                     47517 MW:
                                                                                                                                                                                                                                   100.08;
                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mamm. Genome 9:162-164(1998),
                                                                                                                                                                                                                                                                          Best Local Similarity 100.
Matches 428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                          42
232
368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENTPDS OR CD39L4.
Mus musculus (Mouse)
                          42
232
368
428 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FISSUE=Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENPS_MOUSE
                   CARBOHYD
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NTPases."
                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
```

```
use by non-profit institutions as long as its content is in no way modified and this extenent is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/aurounce/or sends nemail to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 KRTPVVLKATAGLRLDEQXAQALLLEVEEIFKMSPFLVPDDSVSIMDGSYEGILAWYTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 SYLGFGIKAARLATLGALETEGTDGHTPRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUB-exerationcyces, Characterioryces, PubMed-9676430; Chadvick B.P. Priochtalk A.M.; Chally: Characterior C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGMGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 EVCDNLESFTSGSPFLCMDLSYITALLKOGFGFADGTLLOLTKKVNNIETGWPGG---HD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MAISWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 RIHVYTFVQKAAGQLPFLEGEIFDSVKPGLSAFADQPKQGAQTVHALLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bukaryota, Metazoa, Chordata, Craniata, Vertebrata; Buteleostomi,
Kammilai, Butheria, Primates; Catarrhini; Hominidae; Homo.
NCSI_TRAID=5606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1; Length 469;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-001-201 (Rel. 4) Created)
16-001-2010 (Rel. 4) Late sequence update)
28-EFB-2013 (Rel. 4) Late annotation update)
(WTPDsase) (CD39 antigen-like diphosphohydrolase 6 (EC 3.6.1.6)
                                                                                                                                                          ENEL, APO84568; AAF23911.1; ALT_IERM.
ENEL, APO84568; AAF23911.1; ALT_IERM.
ENEL, FROOTON, GRAL COSP.
FROM, FROOTON, GRAL COSP.
FRAM, FROOTON, GRAL COSP.
FATER, FROOTON, GRAL COSP.
FATER, FROOTON, TATABREEMENTANC, GLACULAN, MAGNESIUM;
BRIGODIAGMACK TEATRACHEMENTANC.
SIGNAL
18 PAPERTYTAL.
19 469 ECTOWOLLEROSTED FRIPHOSPHATE
ENTRY 19 469 ECTOWOLLEROSTED FRIPHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                    ECTONUCLEOSIDE TRIPHOSPHATE DIPHOSPHOHYDROLASE 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 469 AA; 52125 MW; 03D8A23E0C73474B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 86.7%; Pred. No. 9.8e-148; nes 364; Conservative 22; Mismatches 31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           484 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85.9%; Score 1933.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NTPDase6) (CD39
ENTPD6 OR CD39L2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENP6 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vatches
                   STTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           this SNISS-PROT entry is copyright. It is produced through a collaboration between the SAISS Institute of Bioinformatics and the EMBLOUSESAION - Phe Burgoen He SAISS Institute of Bioinformatics and the FMBLOUSESAION - The Burgoen He SAISS Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360 EVCDNLGSFSSGSPFLCMDLTYITALLKOGFGFADGTLLQLTKKVNNIETGWALGAFFHL 419
                                                                                                             61 RIHVYTPVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                     60 RIHVYTFVQKTAGGLPFLEGEIFDSVKPGLSAFVDQPKQGAETVQELLEVAKDSIPRSHW 119
                                                                                                                                                                                                                                          121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                             NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSPEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                         NFLTGOLHGRGQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTFKLYTH 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240 SYLGFGLKAARLATLGALEAKGTDGHTFRSACLPFWLEAEWIFGGVKYQYGGNQEGEMGF 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
              is-CCT-2001 [Rel. 40, Last sequence update)
18-CCT-2001 [Rel. 40, Last sequence update)
18-CCT-2001 [Rel. 40, Last amonetic nu pdate)
18-CCT-2001 [Rel. 40, Last                                                                                                                                                                                                                                                                              241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -!- DISEASE: CPH ONCOGENE HAS TRANSFORMING CAPACITY AND TUMORIGENIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mesocricetus auratus (Golden hamster).
Mesocricetus auratus (Golden hamster). Verrebrata; Euteleostomi;
Mammalia; Eutheria Rodenta, cruxognathi; Muridae; Cricetinae;
Mammalia; Eutheria Rodentae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATALYTIC ACTIVITY: A nucleoside diphosphate + H(2)0 = a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -1- SIMILARITY: BELONGS TO THE GDA1 / CD39 NTPASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              469 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4) (ER-UDPase) (Proto-on
ENTPDS OR CD39L4 OR CPH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 LQSLGIS 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    111111:
420 LQSLGIT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=10036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9QYC8; Q9QYC9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mesocricetus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MESAU
                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENPS_MESAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                       ŝ
                                                                                                                                                                                                                                                    ò
```

Gaps

ë.

53233 MW; 27334B290DB8D64C CRC64;

484 AA;

```
RESULT 5
ENPG_RAT
ID _ENPG_RAT
   SEQUENCE
                                             Query Match
                                                                  Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09ER31;
   g
                                                                                                                                                                            셤
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                   S
C
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                         And Continue From NA. PubMed-11740012.

M. Concer M. Startidge G. Allerdau J.P. Blabboge A.K. Baggulley C.L. Ballings O. P. Barled G. Allerdau J.P. Blabboge A.K. Baggulley C.L. Balley S.E. Barled M. Branch M. Brown A.J. Buck D. Buller A.P. Carder C. Carter N.D. Buck D. Burled M. Clark S.L. Carder C. Carter N.D. Clark D. Corden M. Crobley V.E., Coller B.E., Cornor R.E., Corrby N.B. Calego S. Cooley V.E., Coller B.E., Cornor R.E., Corrby N.B. Carden D. Coller M. Coller M. D. Man N.D. Garled P. Ball R.E. Blington M. C. Frankland J.A. Merser M. Dhami P.D. Dhun M., Ellington M. C. Frankland J.A. Merser M. Dhami D.D. Dhun M., Carled M. C. Griffiths M.D. Garled P. Ball R.E. Carden D. Carled M. 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            is SWISS-FROT extry is copyright. It is produced through a collaboration between the swiss Institute of Bioinformatics and the Bubb outstation—the European Bioinformatics Institute. There are no restrictions on its use a nor profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial or remires requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - 1. FROWTICE MIGHT SEPECPE CALVORAGE PROM CELLS, MIGHT CATALYZE THE COLT PROPERTIES A PERFERENCE AND WHEN RELEASED READ CELLS, MIGHT CATALYZE THE COLTES FOR EXTENDENTIES PREPERENTALLY WINCLESCIES 9. TREPECSHAFTS ARE HURDALYZES DOLLY OF A MINOR EXTENT, THERE IS NO HURDALYSES OF HURCLESCIES 9. TREPECSHAFTS ARE SEED TO PROPER OUR COLDS OF A MINOR EXTENT, THE CAPALYZES TO MINOR TO PROPE OUR ADDRESS OF A DECEMBER OF ACTIVITY A MICH DEFENSE OF A CAPALYZE SEED OF THE PROPERTY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "The DNA sequence and comparative analysis of human chromosome 20."; Nature 414:865-871(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
LDURBAL (POTENTIAL)
N-LINKED (GLCNAC, ...) (POTENTIAL)
N-LINKED (GLCNAC, ...) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Thearbo, IRROGOANO, TANA, COD3-WIPRSes.
FROM PEOLISO, COD3-WIPRSE, PALSE NEG.
PROSITE, PSO1218; GDA1, COD3-WIPRSE, PALSE NEG.
Mydrolase, Transmembrathe, GLycoprocean, Calculum, Megnesium;
SLYGOLASE, Transmembrathe, GLycoprocean, Calculum, Megnesium;
SLYGOLASE, Transmembrathe, GLycoprocean, Calculum, Megnesium;
SLYGOLASE, CALCULUM, MAGNESIUM, MAGNESIUM,
TANASMEM 40 SO SIGNAL-ANGRE (PREFITAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genew, HGNC:3368; ENTPD6.
Will, GO:000460; F:adenosinetxiphosphatase activity; TAS.
GO:000460; F:adenosinetxiphosphatase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L (IN REF. 2).
K (IN REF. 2).
the gene family from Drosophila melanogaster.";
Genomics 50:357-367(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ^ ^
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AF039916; AAC39883.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2220
2220
2334
2023
                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284
138
202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rogers J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
CARBOHYD
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
```

```
p egothere From N. Subcellura LOCATION, AND CHARACTERIZATION.

X MEDINE-2019874; Pibbde-1102118;

Braun N. Fargler S. Labling C., Servos J., Zinmernann H.;

Braun N., Fargler S., Eabling C., Servos J., Zinmernann H.;

Braun N., Fargler S., Eabling C., Servos J., Zinmernann H.;

T "Sequencing, functional expression and characterization of rat

T moleoside triphophate diphosphates and novel member of the ecto-

T moleoside triphosphate diphosphate/alse family ";

Bloches J. Sii 639-647 (2000)

T PROTION MIRE SUBCARDER CANCONSTRUCTIONS IN THE COLGI

**FUNCATION MIRE SUBCARDER S. MIGHT CANLAZE THE

**RURBARDERS AND PROSENTES IN SOURCE SERVER STREAM MICHAELIZE ONLY TO A MINNE EXTENT THERE IS NOW HORDERIZES IN SERVER STREAM

**CONTACT CANLATIVEY A NUAL MOST STREAM AND MADERIZES AND STREAM AND STREAM AND STREAM AND STREAM STREAM STREAM STREAM AND STREAM STRE
                                                                                                                                                                                                                                                                                                                                                                                       156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                           90 PLGTAADGHEVFYGIMFDAGSTGTRVHVFOFT-RPPRETPTLTHETFKAVKPGLSAYADD 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217 LEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTFRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  129 SFKGEWEHAEVTYRVSGQKAAASLHELCAARVSEVLQNRVHRTEEVKHVDFYAFSYYYDL 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AVDIDMIDYEKGGILKVEDFERKAREVCDNLENFISGSPFLCMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                               40 PINVSA---STLYGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQ
                                                                                                                                                                                                                                                                                                                                                                                       97 PKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                    269 LOASPPGYLTALRMENRTYKLYSYSYLGLGLMSARLALLGGVEGOPAKDGKELVSPCLSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       157 FLVPKGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                   . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCT-2001 (Rel. 46, Created)
16-CCT-2001 (Rel. 46, Last sequence update)
16-CCT-2001 (Rel. 46, Last annotation update)
16-CCT-2001 (Rel. 46, Last annotation update)
16-CCT-2001 (Rel. 46) Last annotation update)
17-CCT-2001 (Rel. 46) Last annotation update)
18-CCT-2001 (Rel. 46) Last annotation upd
       Length 484;
                                                                                                   Indels
; Score 999; DB 1; Le; Pred. No. 1.2e-72; 56; Mismatches 123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      396 STVLOLTKKVNNIETGWALGATFHLLQSL 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   448 SKVLKLTRKIDNVETSWALGAIFHYIDSL 476
       44.48,
                                                     52.4%;
                                                                                           Matches 204; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat).
                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10116;
```

```
The SWISS-PROT mity is copyright. It is produced through a collaboration between the SWiss institute of Bioinformatics and the Bigle Guttettion. The Burpen Bioinformatic institute. There are no trestrictions on its the Burpen Bioinformatics and ong as its content is in no way madified and this statement is not removed. Usage by and for commercial or entities requires a license agreement (see http://www.lab-sib.ch/announce/or entit on small to license@ab-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44 YAVVFDÄGSTGSRIHVYHFNQNL-DLLHIGKGVEYYNKITPGLSSYANNPEQAAKSLIPL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222 DDPYIKKVVLKGIPYDLYVHSYLHFGREASRAEILKL-----TPRSPNPCLLAGFN 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       273 GIYTYSĞBEPKATAYTSĞ-ANPNKCKNTIRKAL--KLNYPCPYONCTFGGIMNGGGGNGQ 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327 ---YAFSYYYDRAVDIDMIDYEKGG-ILKVEDFERKAREVCD-NLENFISGSPFL---- 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             330 KNLFASSSFFYLPEDIGMVDASTPNFILRPVDIETKAKEACALNFEDAKSTYPFLDKKNV 389
        'Light-modulated abundance of an mRNA encoding a calmodulin-regulated,
                                                                                                                                                STRAIN=cv. Alaeka; TISSUB-Stem;
Shibbata K., Abe S., Davies B.
SErnicture of the coding region and mRNA variants of the apyrase from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49 YGIMPDAGSTGTRIHVYTFVQKMPGQLPILEG-EVPDSVKPGLSAFVDQPKQGAETVQGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LEVAKOSIPRSHWKKTPVVLKATAGLRLLPEHKAXALLFEVKEIF-RKSPFLVPKGSVSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             103 LEQAEDVVPDDLQPKTPVRLGATAGLRLLNGDASEKILQSVRDMLSNRSTFNVQPDAVSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     167 MDGSDEGILAWVĮVNFLTGQLHGHRQEIVGTLDLGGASTQITFLPQFEKTLEQTPR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     163 IDGTQEGSYLWVTVNYALGNLGKKYTKTVGVIDLGGGSVQMAYAVS-KKTAKNAPKVADG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              223 --GYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETEGTDGHTFRS--ACLPRWLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       279 AEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHOPEEVQRGSF......
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 377 ----CMDLSYITALLKDGFGFADSTVLQLTKKVNN----IETGWALGATFHLLQSL 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      390 ASYVCMDLIYQYVLLVDGFGLDPLQKITSGKEIEYQDAIVEAAWPLGNAVEAISAL 445
                                                                                                                                                                                                                                                         54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; Length 455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
21.7%; Score 489; DB 1; Length 45:
Best Local Similarity 33.7%; Fred. No. 1e-31;
Matches 140; Conservative 62; Mismatches 160; Indels
Matches 140; Conservative 62; Mismatches 160; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50072 MW; 50FDF0023ABC4299 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-0C7-1993 (Rel. 27, Created)
01-0C7-1993 (Rel. 27, Last sequence update)
11-SEP-2003 (Rel. 2, Last annotation update)
Guanosine-diphosphatase (EC 3.6.1.42) (GDPase).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterProj IPR000407, GDAL_CD39_NTPase. PEAM: POLISO, GDAL_CD39_1. Th. PR00SITE; PS0128; GDAL_CD39_NTPASE; 1. PV40CASE; NUCLear Profesii. SEQUENCE 585 AA; 50072 ww; SEOFFDOO
                                  chromatin-associated NTPase in pea.";
Plant Mol. Biol. 30:135-147(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; 232743; CAA83655.1; ...
EMBL; AB027614; BAB18900.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; S65147; S48859.
                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                   Pisum sativum.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GDA1_YEAST
ID GDA1_YEAST
AC P32621;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
        SO WERE THE SERVICE OF THE SERVICE SER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  824448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
between the Savis Institute of Bioinformatics and the BMB quettaction. 
the European Bioinformatics Institute. There are no restrictions on its 
use by non-portic institutions as long as its content is in no way 
modified and this statement is not removed. Usage by and for commercial 
entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@sibe.sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49 YGIMPDAGSIGTRIHUYIFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGIL 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74 YGIMFDAGSIGTRIHVFQFA-RPPGETPTLTHSTFKALKPGLSAYADDVEKSAQGIQELL 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109 BVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMD 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13 NVAKQHIPYDFWKATPLVLKATAGLRULPGBKAQKLLQKVKKSVFRASPFLVGDDCVSIMN 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GSDEGILAMVIVNFLIGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSF 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OMFNRTFKLYSYSYLGLGLMSARLAILGGVEGKPAEDDKELVSPCLSPRFRGKWEHAEVT 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        229 EMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTFRSACLPRWLEAEWIFGGVK 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          288 YOYGGNQEGEVG-FEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEK 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313 YRISGOK--AVGLYELCASRVSEVLRNKVHRTEEAQHVDFYAFSYYYDLAASFGLIDAEK 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGILKVEDPERKARBVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVN 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTDEGVSAWITVNFLTGSLKTPGSSSVGMLDLGGGGSTQITFLPRVEGTLQASPPGHLTAL
                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pisum sativum (Garden pea)
Bukaryota Vitidiplantase Streptophyta, Embryophyta, Tracheophyta,
SpEnkarophyta, Magnoliophyta, eudicoryladons, core eudicots, Rosidae,
eurosida I, Fabales, Fabaceae, Papilionoideae, Vicieae, Pisum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-007-1996 (Rel. 34, Created)
01-007-1996 (Rel. 34, Last sequence update)
28-EEG-2003 (Rel. 41, Last amnotation update)
Nucleoside-triphosphatese (ES 3.6.1.15) (Nucleoside triphosphate (Possbohydrolase) (APPAsse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                LUMENAL (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL)
                                                                                                                                                                                           wwile, hazyrde, CALIGESE, 1; ...
Interero, IRROGOROT, GDAL, CCD3 PATPAGE.
PRÉATH, FFOLISO, GDAL, CD39; 1...
PRÉATH, FFOLISO, GDAL, CD39; 1...
PRÉATH, FFOLISE, GTANGENER, FALESE, NEG.
PRÉATH, FFOLISE, CTANSHERBERGE, GTANGERGE, FALESE, NEG.
SIGNAL - Anchori, GOLGH, Etack.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 986; DB 1; Length 45; Pred. No. 1.2e-71; S1; Mismatches 117; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19A22E8BAEF0F77B CRC64;
                                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            455 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-CV. Alaska, TISSUE-Plumule,
MEDLINE-96197404; PubMed-8616230;
Heleh H., Tong C.G., Thomas C., Roux S.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIETGWALGATFHLLQSL 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49899 MW:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                33 4
192 1
256 2
455 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=3888;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NTPA PEA
P52914;
                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NTPA PEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

us-09-905-744b-6.rsp

Page

```
210
                                                                                                                                                                                                                                                                                                                                                                        330
                                                                                                                                        a
                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                   à
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EWBL outsation-between bloinformatics Institute. There are no restrictions on its way non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial or send an an incense agreement (See http://www.ish-sib.ch/announce/or send an amail to litemse@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lew H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Discripto, 1 protouto, 1 proto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dietrich F. S., Mulligan U.T., Hennessy K.M., Yelrom M.A., Allen S., Authority R., Authority R. Bernan T., Carpenter T., Chen E., Cherty J. M., Chang S., Dirson M., Garman E., Hartzell G., Phulicke Jmith S., Harta R.M., Koger A.M., Komp C., Lakakhari D., Lew B. Huicke Smith S., Harta R.M., Koger A.M., Komp C., Lakakhari D., Lew B., Chen D., Makhara K., Namath A., Norgren R., Coffere P., Smith V., Toylor P., Wei Y., Botstein D., Davis R.W.; Shogren T., Shogren T., The nucleoride sequence of Saccharomyces cerevisiae chromosome V.", When Urus 387:78-81 (1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THE FINATION APPER TAXABRER OF GROADE OF BROCKENOUS MACROMOLECULAR CACETORS THE BRINNE OWNERS NOTICESTED DIPROSPRIATES TO NUCLEOSIDE OF PROPERTIES TO ALGORITH BRIND THE COLGS. LIDREN IN ALGORITH GRINY OF ADDITIONAL NUCLEOSIDE SURVEY WHEN STRONG THE CYTOSOL.

ON ALCHOUSE SURVEY THE CYTOSOL. OF PROSPERSE.

PRIMARY: GLYCOTYPITY: OF THE CYTOSOL. OF PROSPERSE.

SURCELLULAR LOCATION TYPE II Generale profess. Gold.

SURCELLULAR LOCATION TYPE II Generale PROPERS.
                                                                                                                                                                                                                   WEDLINES-3010137. Pubbedes301573; Pubbelong 19. Pubbedes301573; Pubbelon C. Yanadisawa K., Mandon E.C., Hacusler A., Morcemen K., Hirechberg C.B., Robbins P., Colannosine diphosphetase is required for protein and sphingolipid djycosplation in the Godgi Immen of Saccharomyces cerevisiae."; j. Cell Biol. 122:307-321(1933).
                              Saccharomyces carevisiae (Baker's yeast)
Bukaryota, Fungi, Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomyceales; Saccharomycetaees, Saccharomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1; Length 518;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9A61182D5ED22ADF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 483.5;
                                                                                                                                                                  SEQUENCE FROM N.A., AND PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED
OR YEL042W OR SYGP-ORF16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                56821 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; L19560; AAA34656.1; -. EMBL; U18779; AAB65000.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                      PubMed=9169868;
Dietrich F .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
280
335
518 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                  NCBI_TaxID=4932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
```

```
This SWISS-RROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the Regis Outstation—the European Bioinformatics institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   436
273 LPRWLEA--EWI-------FGGVKYQYGG------NQEGEVGFEPCYAEVLR 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13.7 GEETWINSVESGIAGSLDELESDSHF-CLDLSFQVSLLHTGYDIPLQRELRTGKKIANKE1 495
                                                                                                                                                                                  IMDGSDEGILAWVTVNFLTGQL--HGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRG
                                                                                                                                                                                                                                                             HKPDLKFGDENYTLYQFSHLGYGLKEGRNKVNSVLVENALKDGKILKGDNTKTHQLSSPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LPPKVNATNEKVTLESKETYTIDFIGPDEPSGAQCRFLTDEILNKDAQCQSPPCSF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---NGVHQPSLVRTFKESNDIY1FSYFYDRTRPLGMPLSF-----TLNELNDLARIVCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------DNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIET
                                                                                                                                                                                                                                                                                                                                                                                                                             224 YLTSFEMFNSTYKLYTHSYLGFGLKAAR------LATLGALETEGTDGHTFRSAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.0 VVRGKLHQPEEV----QRGSFYAFSYYYDRAVDTDM-IDYEKGGILKVEDFERKAREVC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4. Biol. Chem. 7371,22139-221451956).

-I. FRINCTON: CVRLAIZES THE NYDROLYSIS OF PHOSPHOANHYDRIDE BONDS OF NUCLEOSIDE TAT. AND DI-PHOSPHATES.
-I. CARALITIC ACTUITY: ATR + 2 H[2]O = ANP + 2 phosphate.
-I. CORACTORI CALCIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota, Viridiplantae; Streptophyta, Embryophyta; Tracheophyta; Spermatophyta, Magnoliophyra; edicoryledons; oore eudicots; Asteridae; Amilia Solanhaes, Solanbaes; Solanha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAINCE, Desirver, Desirv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., AND SEQUENCE OF 59-160; 236-253 AND 332-345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wy Sour.
P80555, Q43164,
01.0071396 (RB1. 34, Created) snow update)
01.0071397 (RB1. 35, Last sequence update)
01.007.1997 (RB1. 35, Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Purification and cloning of a soluble ATP-diphosphohydrolase degrate! from pretto tubers (5chanum tubercounn)"; Blochem Bloch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              --- SUBCELULAR LOCATION: Membrane-associated (Probable).
--- FTM: THE N-TERMINGS IS BLOCKED.
--- SIMILARITY: BELONGS TO THE GDAI / CD39 NYPASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 42-54; 68-95 AND 236-253.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=96158985; PubMed=8579614;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GWALGATPHLLQS 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               496 GWCLGASLPLLKA 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Handa M., Guidotti G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=4113;
```

165

YGIMFDAGSTGTRIHVYTF-VQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGL YVIMIDAGSTGSRVHIYKFDVCTSP---PTLLDEKFDMLEPGLSSFDTDSVGAANSLDPL 108 LEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKS-PPLVPKG-SVS

Mismatches 160, Indels

.3e-31;

No. 3

Pred.

32.8%; Conservative

al Similarity 142; Conserv

Local Matches Best

49

셤 à

26;

Gaps

```
-!- SIMILARITY: BELONGS TO THE GDA1 / CD39 NTPASE FAMILY.
                                                                                                                                    EMBL; U41007; AAA82272.1; -. PIR; T34147; T34147.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 417 -- TFHLLQSLGIS 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           422 DLKFNLLEQLEVA 434
                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 27.7%
Matches 120; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Caenorhabditis elegans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAEEL
                                                                                                                                                                                                                                                SECUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         021815;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAEEL
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                            184 TGQLHGHRQETVGTLDLGGASTQITFL---PQFEKTLE-QTPRGYLTSFEMFNSTYKLYT 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182 LGNLGKDYKSTTATIDLGGGSVQMAYAISNEQFAKAPQNEDGEPYVQQKHLMSKDYNLYV 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240 HSYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGNQBGEVG 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300 PEPCYABULRUVRG--KLHOPEEVORGSF-----YAFSYYYDRAVDTDMI 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              293 ---SWKRCRLTRHALKINAKCNIEECTFNGVWNGGGGDGOKNIHASSFFYDIGAQVGIV 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   343 DYE-KGGILKVEDFERKAREVCD-NLENFTS-----GSPFLCMDLSYITALLKDGFG 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  350 DTKFPSALAKPIQYLNAAKVACQTNVADIKSIFPKTQDRNIPYLCMDLIYEYTLLVDGFG 409
                                                                                                                                                                                                                                                                                                                                                        66 TFVQKMPGQLPILEG-EVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHWKKTP 124
                                                                                                                                                                                                                                                                                                                                                                                                              125 VVLKATAGLRLLPEHKAKALLFEVKEIFR-KSPFLVPKGSVSIMDGSDEGILAWVTVNFL 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   242 HSYLNYGOLAGRAEIFKASRNES-------0PCALEGCDGYYSYGGVDYKVKAPKKGS-- 292
                                                                                                                                                                                                                                                                                                    25 NOOTWFEGIFLS-----SMCPINVSA-----STLYGIMFDAGSTGTRIHVY 65
                                                                                                                                                                                                                                                                                                                              3 NONSHPIFIILAIFUVLPLSLLSKNVNÄQIPLRRHLLSHESEHYAVIFDÄGSTGSRVHVF 62
                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                              POTENTIAL,
POTENTIAL,
N-LINKED (GLCNAC, . .) (FOTENTIAL),
POPSEPEA11DAZFEZF CRC64;
                                                                                                                                                                                                                                                                          69;
                                                                                                                                                                                                                                                19.8%; Score 446.5; DB 1; Length 454;
                                                                                                                                                                                                                                                             28.8%; Pred. No. 2.6e-28;
tive 78; Mismatches 177; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Lats Equence update)
Hypotherical 40, Last annotation update)
Hypotherical 54.3 MDa protein G33H5.14 in chromosome IV. G33H5.14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bradshaw H., Stellyes L.;
Submitted (DEC-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       393 F---ADSTVLQLTKKVNN-IETGWALGATFHLLQS 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 410 LNPHKEITVIHDVQYKNYLVGAAWPLGCAIDLVSS 444
                                                                                               Interero; IPROGGGO, GDA1 CC39_NTPage.
PROM: PROJISO; GDA1 CD39_NTPASE; 1.
PROSITE: PSOI258; GDA1_CD39_NTPASE; 1.
STGARGES; Transmembrants; CB3-CLIUM; Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                      50041 MM;
                                                                       EMBL; U58597; AAB02720.1; -.
                                                                                                                                                                                                                                                                            Matches 131; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD,
                                                                                                                                                                454
446
151
262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Caenorhabditis elegans.
                                                                                  JC4616; JC4616.
                                                                                                                                                                                            151 1
262 2
454 AA;
                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=Bristol N2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YY4E CAEEL
                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                 FRANSMEM
                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             018411;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YY4E_CAEEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
      STITITES
                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
here and so, more cutry is copyright. It is produced through a collaboration here are the statement of the surface of Bioinformatics and the EMSI outsitation the EMSI outsitation use by non-profite institutions as long as its centent is in no way used by non-profit institutions as long as its centent is in no way modified and this statement is now removed. Usage by and for commercial entities enquire and itemse agreement (see http://www.isb-sib.ch/announce or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                49 YGIMFDAGSTGTRIHVYTFVQKMPGOLPILEGEVFDS-----VKPGLSAFVDQPKQGAE 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             258 GLNR--LIG----EFTUNGTGE--WDVCLAQVSSLI-GDXAQPSCPNPTCFLRNVIAPSV 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   309 NLSTVQLYGFSEYWYTTS-----NFGSGGEYHYQKFTDEVRKYCQKDWNDIQDGFKRNE 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           363 PPNADIERLGTNCFKAAWVISVLHDGFN-VDKTKHLFQSVLKIAGEEMQMALGAMLYHSK 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           103 TVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFL-VPK 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84 YLTPLIRFABEHIPYEOLGETDLLIFATAGMRLLPEAQKDAIIKNLONGLKSVTALRVSD 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              162 GSVSIMDGSDEGILAWTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEK---- 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       144 SNIRIIDGAWEGIYSWIAVNYILGRFDKENDSKVGMIDMGGASVQIAFEIANEKESYNGG 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  216 TLEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETEGTDGHTFRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    204 NVYBINLGSIETNEDYK -- YKIYSTIFLGYGANEGLKKYENSLVKSGNS----NDSCSPR 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPE--------319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 320 EVORGSFYAFS-YYYDRAVDTDMIDYEKGGILKVEDFERKAREVC----DNLENFTSGSP 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25 YGVICDAGSSGTRLFVYY-LKPLSGGLTNIDTLIHESRPVVKKYTFGLSSFGDKPEQVVE 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     375 F----LCMDLSYITALLKDGFGFADST--VLQLTKKVNNIETGMALGA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1; Length 485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84; Mismatches 152; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 439 459 POTENTIAL.
485 AA; 54309 MW; DE64DIADC20F581E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Wornego, 10318 13; 1504159.
InterFro, IPRODAICH, GDAL CD39, NTP88e.
FEAR, FPOILSO, GDAL CD39; 1.
PROSTE; PSO1298; GDAL CD39 NTPARE; 1.
PROPER, PROSTE; PSO1298; GDAL CD39 NTPARE; 1.
PROPER, STANDER, STANDER, PARAMENE, PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17.2%; Score 387.5; DB 1
27.7%; Pred. No. 1.6e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1997 (Rel. 35, Created)
28-FBB-2003 (Rel. 41, Last sequence update)
28-FBB-2003 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hypothetical protein R07E4.4 in chromosome X. R07E4.4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT; 552 AA.
```

```
This SWISS-PROF entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. The European Bioinformatics Institute. There are no restrictions on its lowe. By non-profit institutions as long as the content, is in no way use. By non-profit institutions as long as the content, is in no way.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified and this statement is not removed. Usage by and for commercial entities a license agreement (see http://www.isb-sib.ch/announce/or send an email to licenseesbisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 MLVVSCVCSAVSHRNQOTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGTRIHVYTF-VQ 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66; Mismatches 170; Indels 112; Gaps
RENEDIO (O 1019).
Galiule gallie (Bricken).
Būkkayota: Metazoa, Forddata, Craniata; Vertebrata; Buteleostomi;
Rese, Neosavika, Metazoa, Cordata, Caniata; Vertebrata; Buteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ngal, drutaling (m. 1970), day (m. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                      lewis-Carl S., Kirley T.L.; maintenance and ecto-apyrase in chicken wimmunolocalization of the ecto-ATPase and ecto-apyrase in chicken gizzard and scomech. Purification and N-terminal sequence of the

    Biol. Chem. 272.23664.23658.(1997).
    PROMEZTION. In the nervous system, could hydrolyze ATP and other nucleotides to regulate purinergic neurotransmission. Could all be implicated in the prevention of placelete aggregation. Pydrolyzes ATP and ADP equally well [89 similatity].
    COMPATION CANTUTY: ART > 2 H(2)O = MMP + 2 phosphate. COMPATION SINTITY: ATP > 2 H(2)O = MMP + 2 phosphate.
    SUBMITY: HANDOWIRES, INSUFITED.LINEST [REQUARTITY].
    SUBGELJULAR LOCATION: INTEGRAL membrane procedule (Potential).

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!. PIM: N-GIXCOSYLATED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -> W (IN REF. 2).
-> G (IN REF. 1; AA SEQ!
F14FF4C3AA2F3603 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                          SEQUENCE FROM N.A., AND SEQUENCE OF 1-21 AND 150-156.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                   Nagy A.K., Knowles A.F., Nagami G.T., "Molecular cloning of the chicken oviduot ecto-ATP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17.0%; Score 383; DB 1;
27.3%; Pred. No. 3.7e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED
                                                                                                                                                                                                                                                                                                                                Biol. Chem. 273:16043-16049(1998)
                                                                                                                                                                                                                               MEDLINE=98298108; PubMed=9632655;
                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=97442428; PubMed=9295305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54034 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AF041355; AAC26491.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                        diphosphohydrolase."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       493 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                     SECUENCE OF 1-17.
                                                                                                                     NCBI_TaxID=9031;
                                                                                                                                                                                                          ISSUE=Oviduct;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
    ò
                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Boinformatics and the Bubbe unteraction the European Boinformatics Institute. There are no rescrictions on its use by non-profit institutions as long as its content. Is in no way modified and this sterement is not removed. Usage by and for commercial entities requirement specimen (See http://www.isb-sib.ch/announce/or sent an email to licemsesibe sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44 YGVICDAGSTGTRLFVYNWISTSDSELIOIEPUIYDNKFVMKKISPGLSTFGTKPAOAAE 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104 YLRPLWELAERHIPEEKRPYTPVFIFATAGWRLIPDEGKEAVL---KNLRNKLPKITSMQ 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     257 ALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGN--QEG------E 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               357 RKAREVCD-----NLENPTSGSP-----FLCMDLSYITALLKDGFGFADST--VLQ 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49 YGIMPDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDS-----VKPGLSAFVDQPKQGAE 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        103 TVQGILEVAKDSIPRSHWKKTPVVLKATAGLRLLPBHKAKALLPBVKBIFRKSPFL--- 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         159 VPKGSVSIMDGSDEGILAMVTVNFLTGQLH------GH-RQETVGTLDLGGAST 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          206 QITF-LPQFEK----TLEQTPRGYLTSFEMFNSTYKLYTHSYLGF----GLKAARLATLG 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        279 KÚKDQ--NĠTVIQDDČMPLNĽHKT-----ŸTLENĠEŇFVRRĠTGNWNTCSNEVKKLINPË 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             298 VGFEPCYAEVLRVVRGKLHQPE-EVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFE 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.2 SSSEVCKAEAAKCYFGAVPAPSIPLSNIEMYGPSEYWYSTHDV----LGLGGGQYDAENIA 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-CCT-1001 [Rel. 40, Last Sequence update)
15-88P-2003 [Rel. 44, Last amortation update)
BECONOCIECATE POLOS REL PRODUCTION (RTPDESSE) (LYPDESSE)
(RTPDESSE) (REC-AFF Stabhopshiphytaciase) (LYPDESSE) (LYPDESSE)
ACTIVATION antigen) [REC-afpyrase) (CD39 antigen).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 552;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69; Mismatches 160; Indels
                                                                                                                             Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
                            Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                552 AA; 62510 MW; E5DC32C858AE4D94 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                             Mormpep, Rynk 4, CE38148

HerePro, IRMO0407, GDM, CD39_NTPase.

Ffam, FW01150, GMX, CD39, 1.

PROSTITE, PSC1238, GMA, CD39, 1.

Hypothet.cal procent, Transmembrane, Hydrolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17.1%; Score 385; DB 1;
28.6%; Pred. No. 3e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              493 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                401 LTKKVNNIETGWALGA-TFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     447 SVSTIAGOEVOWALGAMIYHM 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequ
15-SEP-2003 (Rel. 42, Last anno
                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; U39652; AAA80403.2; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Watches 126, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            490
                                                                                                             Materston R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENP1 CHICK
093295;
                                                                                 REVISIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENP1 CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              888444488
            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

(POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) (POTENTIAL) AA SEQUENCE) Length 493;

(GLCNAC.

(GLCNAC. (GLCNAC (GLCNAC (GLCNAC (GLCNAC (GLCNAC (GLCNAC

(GLCNAC.

Could also

Thu Nov 13 06:30:35 2003

```
This $WISS-PROT entry is copyright. It is produced through a collaboration the busies institute of Bioinformatics and the EMBL outstation. The busies misinformatics institute. There are no restrictions of the by non-profit institutions as longs as its content is no way modified and this statement is not removed, Usage by and for commercial entries requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93 FVDQPKQGAET-VQGLLBVAKDSIPRSHWKKTPVVLKATAGLRLLPBHKAKALLFEV-KE 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69 FEKKPQDAYKSHIKPLLDFAKNIIPESHWSSCPVFIQATAGMRLLPQDIQSSILDGLCQG 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      329 LKHPABFLVEDCSAOIOVIDGETEGLYGWLGLNYLYGHFNDYNDEVSDHFTFGFMDMGGA 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STQITFLPQFEKTLE-----QTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARL 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189 STQIAFAPHDSGEIARHRDDIATIFLRSVNGDLOKWDVFVST-----WLGFGANOARR 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253 ATLGAL------ETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGFE 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           302 PCYAEVLR------VVRGKLHQPE-EVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKV 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302 SIYPLLLKWMPCDDEPCLFNGVHAPRIDFANDKFIGTSEYMYTANDV----FKLGGEYNF 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                353 EDFERKAREVCDN-----LENFTSG------SPFL---CMDLSYITALLKDGFGFA---- 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49 YGIMPDAGSTGTRIHVYTF------VQKAMPGQLPILEGE---VFDSVKPGLSA 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 FGIVIDAGSSGSRIHVFKWQDTESLLHATNQDSQSILQSVPHIHQEKDWTF-KLNPGLSS 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242 RYLAQLINTLPENTNDYENDDFSTRNLNDPCMPRGSSTDFEFXDTIFHIAGSGNYEQCTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            151 IFRKSPFLVP---KGSVSIMDGSDEGILAWVIVNFLTGQLHGHRQE-----TVGTLDLGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-W07-1997 (Rel. 35 Created)
01-W07-1997 (Rel. 35 Last sequence update)
115-ERP-2003 (Rel. 42 Last amoration update)
Retouncloside triphosphate diprospholydrolase I (RC 3.6.1.5)
(WTPDasel) (Roco-AFP diphospholydrolase) (ATPDase) (Lymphoid cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 630;
         CATALYTIC ACTIVITY: ATP + 2 H(2)O = AMP + 2 phosphate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16.5%; Score 372; DB 1; Length 63
26.2%; Pred. No. 3.9e-22;
ive 73; Mismatches 165; Indels
                                -!- PATEMAY; Glycosylation.
--: SUBCELLUAR LOCATION: MEMBRANE BOUND; GOLGI.
--: SURILARY: BELONGS TO THE GDAI / CD39 NTPASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COT, CONTONGRÉSE, PIPECRESE MAIND acid $13ycosylation; IMP.
InterPro; IFRODA(97; GDAL, CD39 MTPASE, 1.
PÉRAI, FPOLISO, GDAL, CD39, MTPASE, 1.
PHOLOLaes; Transmenbrane; GOLS, Stack.
DOMAIN. 300 LUMENAL (GOTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02F8D24A78212544 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   510 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----DSTVLQLTKKVNNIETGWALG 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418 DAENVNDRPLFQSVEKVEERELSWTLG 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF203695; AAF17573.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71851 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL, U18778; AAB64538.1; -- PIR, SSO463; SSO463. SSD2, SOO08807; XND1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 26.21
Matches 117, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              518 6
630 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENP1 MOU
P55772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
ENP1_MOUSE
         2255528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                  TAGLRILPEH---KAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVIVNFLTGQ 186
                                                                                                                                                                                                                                                   L------HGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYK 236
                                                                                                                                                                                                                                                                                                                                                                        181 LIKFSFAGKWEHPQNTEVLGALDLGGASTQITFQPGV--TIEDKNTSVL--FRLYGTNYS 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           237 LYTHSYLCYGOIOASKRIMAALHODGSYVONISHPCYPK------GYRRI 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ---GEVGFEPCY-----GKLHQ 3.77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | :: | | :: | | :: | | | :: | | | :: | | | :: | | | :: | | | :: | | | :: | | :: | | :: | :: | | :: | :: | :: | :: | :: | :: | | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PEEVORGSFYAFS-YYYDRA------VDTDMIDY-EKGGILKVEDFERKAREVC 363
                                                                                                                                                     KENGIGIVSQVESCIVNGSGISSYADDPAGAGASLKPCLDKAMAVIPVEQQWQTPTYLGA 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                       237 LYTHSYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQE- 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     341 PP--VRGOFFAFFAGFYYTFSFLNLTGQQSLSHVNATVWDFCNKNWSELVETFPQNK---- 394
395 EHLHTY-----CVVGLYILTLLVDGYKFDEHTWSNIHPSOKAGNADIGWTLGFMLNL 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dietrich F.S., Mulligan J.T., Hennessy K.M., Yolton M.A., Allen E., Araujo R., Avilse E., Berno A., Bernan T., Capenter J., Chen E., Huicke-Shafth S., Hwan E., Bernan E., Hartzell G., Huicke-Shafth S., Hwan R.W., Kayesr A., Koon C., Lashkari D., Low H., Lin D., Mosedaie D., Makhara K., Mansk A., Norgen R., Coffner P., Oh C., Peell F.K. Moolert D., Sobhl E., Schram B., Shogren T., The nuclear F.K. Moolert D., Sobhl E., Schram B., Shogren T., The nuclear F.K. Mooler G. Saccharonyces Cerevisiae chromosome V.;
                                                                                        KMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THE STATE STATEMENT OF THE HYDROLYSIS OF PHOSPHOANHYDRIDE BONDS OF THORTION: CATALLYSES THE HYDROLYSIS OF STATEMENTS. HAS EQUAL HIGH EACTURITY TOWARD ADD/ATP, AND UDE/UTP AND APPROXIMATELY SOIL LESS TOWARD COP/FTP AND THINNINE PROCESSHAFE, HAS NO ACTIVITY TOWARD OFF SEQUENCE OF AN COLD CLOSCHAFFE, THE SECURED FOR GOLGI GLYCOSYLATION AND CELL WALL INTERSETTY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNLENFTSGSPFLCMDLSYITALLKDGFGFADST - - VLQLTKKVNNIBTGWALGATFHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=5934(091, PubMed=10409109,
Geo X.D., Kaisorodow V.V. Jigami Y.J.
Geo X.D., Raisorodow of GDAL, encodes membrane-bound apyrase required
for Godgi N. and G-19740924Jailon in Saccharomyces cerevisiae.";
J. Baol. Chem. 774:23450-23456[1599].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-FEB-1995 (Rel. 31, Last sequence update)
620-25 appresse (EG. 42, Last moncation update)
600-5 appresse (EG. 56.1.5) (ATG-diphosphotytic)ase) (Aenosine
diphosphatase) (Appses) (ATG-diphosphotytic)ase) (Gojgi mucleoside
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Saccharomyces cerevisiae (Baker's yeast).
Sakaryota, Fungi, Ascomycota; Saccharomycetaes; Baccharomycetales; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           630 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A., AND CHARACTERIZATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1995 (Rel. 31, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=S288c / AB972;
PubMed=9169868;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diphosphatase).
YND1 OR YER005W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=4932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
YND1_YEAST
ID _YND1_YEAST
AC P40009;
                                                                                                                                                                                                                  130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  364
                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  while swide-spore entry is copyright. It is produced through a collaboration between the swiss Institute of Bioinformatics and the BMB outstation between the swiss Institute of Bioinformatics and the BMB outstation use by mon-profit institutions as long as a tes content is in no way modified and this statement is not removed used by the content is in no way endified and this statement is not removed usego by and ter commercial entities equipment (see https://www.isb-sib.ch/announce).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WEBL, AFWALKY, CHANCELL

(ED), MOLIOZGOS, EREPORT. IDA.

30, GO:000505, Fayerase activity/ IDA.

30, GO:000505, Fayerase activity/ IDA.

30, GO:000505, Fayerase activity/ IDA.

30, GO:0005168, Fayerase activity/ IDA.

30, GO:0000168, Fayerase activity/ IDA.

30, GO:0000168, Fayerase activity/ IDA.

30, GO:0000168, Fayerase activity/ IDA.

31, GO:0000188, Payerase activity/ IDA.

32, GO:0000188, Payerase activity/ IDA.

33, GO:0000188, Payerase activity/ IDA.

34, GO:0000188, Payerase activity/ IDA.

35, GO:0000188, Payerase activity/ IDA.

36, GO:0000188, Payerase activity/ IDA.

37, GO:0000188, Payerase activity/ IDA.

37, GO:0000188, Payerase activity/ IDA.

38, GO:0000188, Payerase activity/ IDA.

38, GO:0000188, Payerase activity/ IDA.

39, GO:0000188, Payerase activity/ IDA.

30, GO:00000188, Payerase activity/ IDA.

30, GO:0000188, Payeras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Could also
                                                                                                                                                                                         WEDLINE-SCRISSG: PROMED-1920SCR.
Forniscowski C.R., Delespesse G.J.T., Schoenborn M.A., Armitage R.J., Franciow H.C., Makajima T., Baker E., Subherland G.R., Polindekter K., Franciow H.C., Makajima T., Baker E., Subherland G.R., Polindekter K., Friend D., Gingel S.D., Gayle R.B. III., The CR91 yupphoid cell activation antigen. Wolecular cloning and structural characterization.',
                                                                                                                                                                                                                                                                                                                                                                                                             GTRAIN=129/SvJ,
MEDLINE-981999011; PubMed-9730622;
Schoemborn M.A., Jenkins N.A., Copeland N.G., Gilbert D.J.,
GBJC R. F. IIII, Mellszewski C. (K.R.)
'Gene structure and chromosome Jocation of mouse cd39 coding for an
'Gene structure and chromosome Jocation of mouse cd39 coding for an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTORLAND (FOTBWILD).

CYTORLAND (FOTBWILD).

N-LINERD (GLCHAC. ) (FOTBWILD).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ecco-physics in cent. Bi.239.299(1999) Organization the nervous system could hydrolyse Arp and other programmy or regulate partitractic neurotransmisesion. Could alse implicated in the provention of platelet aggregation. Head-byces Arm and ADP equally well.

Fighthyres Armyrive ARP + 2 H(2) 0 = AMP + 2 phosphate. CATALYTIC ARTITRIES CALLORINA MAD PAGASSIME (BY SIMILARIY).

FIGHERITALIAN CONTROL INGERIAL MAD PAGASSIME (BY SIMILARIY).

FIGHERITALIAN CONTROL INGERIAL MAD PAGASSE PARTIT.

SIMILARIYET SELONGS TO THE GOAL (DOS) WIPASSE PARTIT.
                                                  Mus musculus (Mouse).
Bukaryota: Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Rammalia; Furberia; Rodentia; Sciurognathi; Muridae; Mus.
Mammalia; Furberia; Rodentia; Sciurognathi; Muridae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8E6A6113D2E13930 CRC64;
activation antigen) (Ecto-apyrase) (CD39 antigen).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BHEL, REVERST, ARCHITOTHED
BHEL, REVERST, ARCHITOTHED
BHEL, REVERST, ARCHITOTHED
BHEL, REVERST, ARCHITOTHED
BHEL, REVERST, ARCHITOTHED
BHEL, REVERST, ARCHITOTHED
BHEL, REVERST, ARCHITOTHED
HOUSE, REVERST, ARCHITOTHED
HOUSE, REVERST, ARCHITOTHED
HOUSE, REVERST, ARCHITOTHED
                                                                                                                                                                                                                                                                                                                                       Immunol. 153:3574-3583(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF037366; AAB92259.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57205 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL, AF041818; AAC83203.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     510 AA;
                                                                                                                                                                                                                                                                                                                                                                                         SECUENCE FROM N.A.
                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                           NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ecto-apyrase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
```

```
19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266 AKDIQVSSGGVLKDPCFNPGYEKVVNVSELYGTPCTKRPEKKLPFDQFRIQGTGD---- 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                373 AKNSVISQEKMTEITKOPČSKSWEETKTSYPSVKEKYLSEYČFSGAŽILSLLQ-GYNFTD 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92 SKYAOKIDEIGAYLAECMELSTELIPTSKHHGTPVYLGATAGMRLIRMESEQSADEVLAA 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               210 ALDLGGASTQITFVPQ-NSTIE-SPENSL-QPRLYGEDYTVYTHSFLCYGKDQALWQKL- 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257 ALETEGTDGHTFRSACL -------PRWLEAEWIFGGVKYQYGGNQEGEV 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              299 GFEPCYABVLRVVRGKLHOPEE-----344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       321 -YEQCHQSILELFNNS-HCPYSOCAFNGVFLPPLHGSFGAFSAFY-----FVMDFFKKV 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 345 EKGGILKVEDFERKAREVCD-NLENPTSGSPFL-----CMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91 SAFVDQPKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLL---PEHKAKALLFE 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            148 VKEIFRKSPELVPKGSVSIMDGSDEGILAWTVNFLTGQL-------HGHRQETVG 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197 TLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLG 256
                                                                                                                                                                                                                                                                                                                                             16 GLTQNKPLPENVK----YGIVLDAGSSHTNLYIYKMPABKENDTGVVQQLEECQVKGPGI 91
Query Match 16.4%; Score 370; DB 1; Length 510;
Best Local Skinlarity 27.1%; Pred. No. 4.2e-27.
Matches 12; Conservative 71; Mismatches 173; Indels 82; Gaps
                                                                                                                                                                                                                                                            32 GIFLSSMCPINVSASTLYGIMPDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVK-PGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J. Biol. Chem. 27:13146-31221969.

HENGTTOK In the nervous system, could hydrolyze AFP and other nucleoticles to regulate puritergid neutroctansmakasion. Could also be implicated in the prevention of platelet aggregation. Hydrolyzes AFP and APP equally well.

Hydrolyzes AFP and APP equally well.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ii-OCT-2010 (Rel. 40. Created are update)
11-SEP-2003 (Rel. 40. Last sequence update)
11-SEP-2003 (Rel. 40. Last sequence to update)
11-SEP-2003 (Rel. 40. Last sequence are update)
11-SEP-2003 (Rel. 40. Last sequence update)
11-SEP-2003 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDINE-STITESE; DubMed-8955160, Ansather J., Ansather J., Chanark R., Forish K., Serigny J., Siegel J.B., Ansather J., Beandorn A.R., Bach F.H., Robson S.C., Gadefit Litestion and characterization of CD39/wascular ATP diphospholydrolase.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 97-103, 123-133; 136-140; 145-168 AND 459-471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chang A.S., Garcia R.L., Chang S.M., Schilling W.P.;
Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          513 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             396 STVLQL -- TKKVNNIETGWALGATPHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 432 SSWEOIHFMGKIKDSNAGWILGYMLNL 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Aortic endothelium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bos taurus (Bovine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENTPD1 OR CD39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Aorta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENP1 BOVIN
018956;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENP1 BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
```

```
459 LNLTNKI 465
                                                      ENP4 MOUSE
                                                                Q9DBT4;
                               RESULT 15
ENP4 MOUSE
                                                                  This SWISS-RROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMEL outstation. There are no restrictions outstation. There are no restrictions outstation use by non-project institutions and long as its content. as in no way modified and this exterment is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sh.ch/amnounce/created an email to licensestable sh.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          402 KNFGEVKEKYLSE---YCFSGTYILVLLINGYHFTAESWKNIHFMNKVRSTDVGWTLGYM 458
                                                                                                                                     68 VOKAMPGOLPILEGEVFDSVK-PGLSAPVDQPKQGAETVQGLLEVAKDSIPRSHWKKTPVV 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68 PAEKENDIGUVIQIBESHVKGPGISGFAKKVNEINVYLTACMERAQKVIPSIQHMETPVY 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127 LKATAGLELL-PEHK--AKALLFBVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTVNPL 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    184 TGQL-----HGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMF 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186 LGKFTQKLSWPNLKPSKDDTQETYGALDLGGASTQITFVPQNETT--ESPNNNL-YFRLY 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            232 NSTYKLYTHSYLGFGLKAARLATLGALETEGTDG----------------- 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      266 --HTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRV------V 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           302 KRHELNSSFYP-----LVDIEIRGAGN-----FORCROSIIQLFNTSYCPYSSCSF 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312 RGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAREVC----- 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        348 NGVFLPPLHGGFGAFSAFYYV-----MEFLNLTSEESVSVEQLTEKLEEFCAQRWEEVQ 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364 ----DNLENPTSGSPFLCMDLSYITALLKOGFGF-ADS-TVLQLTKKVNNIETGWALGAT 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243 GKNYSVÝTHSFLCYGKDQÁLLOKÍ-ÁLGLQGÍNGIIHEPCFHSRYMRKIKMSVINEGFCT 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                8 VFFMLVVSCVCSAVSHRNQQTWFBGIFLSSMCPINVSASTLYGIMFDAGSTGTRIHVYTF 67
                                                                                                                                                                                                                                                                                                                                                                                                             70; Mismatches 180; Indels 108; Gaps
                                                                                                                                     -i- COPACTOR: REQUIRES CALCIUM AND MAGNESIUM.
--: SIBENUTT: Homodamer; distribéd-liby similarity).
--: SIBENUTT: Homodamer; distribéd-libred (By similarity).
--: SIBENUTT: RELONGS TO THE GDA1 / CD39 NYPASE PAMILX.
                                                                                                                                                                                                                                                                           (POTENTIAL).
                                                                                                                                                                                                                                                                                                (POTENTIAL).
                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                      Length 513;
                                                                                                                                                                                                                                                                                                                                                     464 K -> V (IN REF. 2).
58113 MW, 20FE98F27B6D2F96 CRC64;
                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                          CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. . .) (H
                                                                                                                                                                                                                                                                          N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
                                                                                                                                                                                                                                                                                                                                K -> N (IN REF. 2).
INV -> CGF (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                      16.2%; Score 365; DB 1; 26.5%; Pred. No. 1.1e-21;
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                       481
502
513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         418 PHLLQSL 424
                                                                                                                                                                                                                                                                                                                                  97
101
464
513 AA;
                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 129; Conserv
                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                                        CONFLICT
                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
REMUL 15

TO STREE WOULD

TO STREET WOULD

T
```

```
This SWISS-RPOT entry is copyright. It is produced through a collaboration between the Swise Institute of Bioinformatics and the Bmap outseration the European Bioinformatics Institute. There are no restrictions on its use by morphic institutions along as the content is in no way modified and this externer is not removed. Usage by and for connectial entities requires allocane agreement (see http://www.isb-sib.ch/announce/or send an email to licensesibosib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54 DAGSIGTRIHVYTFVQXMPGQLPILE-----GEVFDSVKPGLSAFVDQPKQGABTV 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94 DCGSSGSRIFVXCWPRHNGNPHDLLDIRQMRDKNRKPVVMKIKPGISEFATSPEKVSDYI 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               105 OGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP----FLVP 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161 KGSVSIMDGSDEGILAWVTVNFLTGQLHGH--------RQETVGT 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       211 DSHABVISGKQEGVYAWIGINFVLGRFE-HIEEDDEAVVEVNIPGSESSEAIVRKRTAGV 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               198 LDLGGASTQITF-LPQ----FEKTLEQTPRGYLTSFEM-----PNSTYKLYTHSYLGFG 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247 LKAARLA-----TLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGN 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            330 GNAARQRYEDRLFASTVQKNRLLGKQTGLTPDAPLLDPCLPLDIKDE-----IQQNGQ 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               394 Q---EGEVGFEPCYAEVLRVVRGKLHQ------PEEVQRGSFYAFSYYYDRAVDT 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11 MLVVSCVCSAVS-----HRNQOTWFE----GIFLSSMCPINV----SASTLYGIMF 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34 IVVISILAAAVSLLYFSVVIIRSKYCWLSKDKKFORYLARVTDVBATDTNNPSVNYGIVV 93
NUCLEOSIDE 5'-TRIPHOSPHATES ARE HYDROLYZED ONLY TO A MINOR EXTENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16.0%; Score 360.5; DB 1; Length 613; 24.4%; Pred. No. 3.2e-21; Live 77; Mismatches 185; Indels 131; Gaps
                                                                                                                              nucleotide + phosphate.
OctorOne: REQUIRES CALCIUM AND MAGNESIUM.
SUBCELLULAR LOCATION: Integral membrane protein (Potential)
LOCALIZES IN THE GOLGI AND AUTOPHAGIC VACUOLSS/LYSOSOMES (B)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                    CATALYTIC ACTIVITY: A nucleoside diphosphate + H(2)0 - a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Prov. WILLIGHT, Liveling Community of the Community of th
                                                                                                                                                                                                                                                                                                                                                                                            Evenc-Alternatios golicing, Named isoforms=2;
Name: 1. Spronyms=1ALP70;
Name: 2. Spronyms=1ALP70;
Name: 2. Spronyms=1ALP70;
1. Signal Spronyms (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998) (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Missing (in isoform 2).
/Frid=VSP 003615.
DES28F512ABEF52F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alegnative splicing; Golgi Stack, 1905come.

TRANSMEM 34 50 TOTROTHAL.

TRANSMEM 55 559 LUBRAL (FOTBUTIAL).

DOWALN 550 560 COTBUTIAL.

DOWALN 550 560 COTBUTIAL.

TRANSMEM 550 560 COTBUTIAL.

TRANSMEM 550 600 COTBUTIAL.

TRANSMEM 560 600 COTBUTIAL.

TRANSMEM 560 600 COTBUTIAL.

TRANSMEM 560 600 COTBUTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AK004761; BAB23542.1; -. EMBL; BC006924; AAH06924.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69745 MW;
                                                                                                                                                                                                                                                                                                                                          ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 24.4
Matches 127; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407
                                          SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 613 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581
404
407
287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VARSPLIC
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

```
DD 383 TLYLGATODPUC-REILOSPRANTETOTSLINGVYQPI-HEQNISEPENTSEEVTCTEUV 441

QQ 340 DMIDYBKQGILKVEDFESKARAEVCON----LENFTSG-------SPELCMDLSYIT 384

442 ----LENGGDYNARFTQANDYCON-TRIBEBERGLYASHADLHELKYQCFKSÄNNE 937

QQ 385 ALALKOGFESTAGA----TVQUTKKNNIETORALGATTH 419

498 EVPHAGESPEYTXGLKTAALQVIXK----EVQUTGALLY 533
```

Search completed: November 13, 2003, 06:17:32 Job time : 22 secs

```
GenCore version 5.1.6
```

Ltd.	
Compugen Ltd.	
- 2003	sw model
<u>.</u>	35
198	g
(c) 1993	, using
opyright	search,
Ö	protein
	- 1
	OM protein
	ĕ

Run on:

November 13, 2003, 06:08:47; Search time 49 Seconds (Withbot alignmente) 1386:428 Million cell updates/sec

1 MATSWGTVFFMLVVSCVCSA.......ETGWALGATFHLLQSLGISH 428 US-09-905-744B-6 Perfect score: Sequence:

Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table:

1107863 segs, 158726573 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Total number of hits satisfying chosen parameters:

1107863

Listing first 45 summaries Post-processing: Minimum Match 0% Maximum Match 100%

A Geneseq 19Jun03:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Human CD39-14 prot	Human CD39 like pr	Human CD39 like ny	Human CD39L4 profe	Human CD39-1,4 vari	Human CD39 like nr	Human CD39-1,66	Himan CD39 14ke pr	Mouse CD3914 prote
SUMMARIES	D	AAY44849	AAB72238	AAB72243	AAE19883	AAY44850	AAB72240	AAY44851	AAB72239	AAE19884
	igth DB	428 21	428 22	428 22	428 23	428 21	428 22	405 21	405 22	465 23
è	Query re Match Length DB I	100.0	100.0	100.0	100.0	99.3	99.3	93.5	93.5	81.4
	Score	2250	2250	2250	2250	2235	2235	2104	2104	1832.5
	Result No.	1	61	ю	4	S	9	7	80	σ'n

33	1 Human CD39I	41 Human	24 Human NS p.	57	9 Human t	8	882 Novel human secre	2 Mature hume	3 Drosophila	1 Drosophila	9 Protein enc	~		Human CD39-	685 NBP46 root lectin	Lotus japonicus					2	6 Arabid	NBP46	Human	1 Human	9 Human	6 Human secrete	9 Novel	653 Human secreted/tr	1 Human PRO	7 Human PRO	3 Human secr	Human Human	7 Human secr	900 Protei
21 AAB53	23 AAE1988	22 AAB722	23 ABB061	23 ABJ046	22 AAM9392		22 AAU3088	22 AAB7224		-	-	-	_				-			23 AAU78820	_					-	•	•		•		24 ABU5618		4 ABU10	1 AAY70
330	456	484	463	467	456	446	462	471	461	464	476	476	476	476	486	486	467	462	462	496	455	472	496	495	458	458	458	458	458	458	458	458	458	458	474
73.	44	44	44.	44.3	44.1	44		36.	31	31.		26.	23.	23.	22.	22	22	22	22	21.8	21	21		16.3											
1660	666	666	966	966	992	686	897	819.5	696.5	696.5	290	590	533	533	507.5	507.5	499.5	.498	498	491.5	489		482.5	36	ž	8	28	58.	58.	28	žв.	358.5	58.	28	54.
10	7	12	13	14	15	16	11	18	19	20	53	55	23	24	25	56	27	28	59	30	33	32	33	34	35	36	37	38	39	0	4,	42	43	44	45

## ALIGNMENTS

	Ź				
	428				
	AAY44849 standard; Protein; 428 AA				entry)
	andard;				(first
	44849 st.		AAY44849;		18-MAY-2000 (first entry)
AY44849	AAX	_	C AAY	v	18-1

RESULT 1

Human CD39-L4 protein.

Homo sapiens

23. 429 23. 429 23. 429 23. 429 23. 429 23. 429 23. 429 24. 528 24. 52 /label= Apyrase\_Conserved\_Region /label= Apyrase\_Conserved\_Region 199..206 'label= Leader\_peptide Location/Qualifiers Binding-site Peptide Protein Region Region Region 

```
This invention relates to polynuclectides encoding human (039-11ke properties with apprase and of referes accriticy. The polyage-tides having from the polyage-tides having from the polyage-tides having from the polyage-tides having the properties of the polyage-tides having comparison and continuance accretivative many from the polyage-tides having comparison and continuance of comparison of the particular properties are excessive comparison certainty platelet agreeation scretches and condition associated arthrespy thromosis or introducing the moderate and conditions associated arthrespy thromosis. Conflict and conditions associated arthrespy thromosis, conflict and conditions associated and appropriate are also useful for conditions the levels of MDPs. The polyage-tides are useful for caducing the levels of MDPs. The polyage-tides are also useful for comparison associated with the Appropriate are also useful for confict of associated with the properties are also useful for confidence of the properties are also useful for confidence of the properties are also useful for the confidence of the properties are also useful for the discussion and appropriate appropriate appropriate appropriate and app
361 EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            wyooardial infactionio: cenebral ischemania inplina; stretal Ihrombosia; osperbasha arrest htrombosis; platelet aggregation; inflammation; apoptosis; arcioimuna disorder; narciological disorder; no stretal disorder; narciological disorder; no stretal disorder; no stretal disease; parkinson; disease; parkinson; disease; narcioimuna (stretal disease; parkinson; disease; cancer; 0039-14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human CD39-like protein; apyrase, NDPase, platelet function inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polynucleotides encoding human CD39-like polypeptides, with apyrasc
and/or NDpase activity, which are useful, in the treatment of
asthological conditions caused by thrombosis (e.g. myocardial
                                                                                                                                                                                                                                                                                                                                                                                                                                    Human CD39 like protein CD39-L4 amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infarction) and inflammatory disorders -
                                                                                                                                                                                                                                                             AAB72238 standard; Protein; 428 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 15; Fig 2; 203pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-AUG-1999; 99US-war-11-JAN-2000; 2000US-0481238.
25-ARR-2000; 2000US-0557800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-AUG-2000; 2000WO-US21790
                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                          421 LOSLGISH 428
                                                                                                                421 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4PI; 2001-147489/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pord J, Mulero JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAF63383.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200110205-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-FEB-2001.
                                                                                                                                                                                                                                                                                                                                                                         14-MAY-2001
                                                                                                                                                                                                                                                                                                                       AAB72238;
                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                       a
                                                               à
                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 RIHVYTFVQKAFGQLPILEGEVFDSVKPGLSAFVDQPKQGABTVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 KKTPVVLKATAGLKLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NFLICQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 NFLTGOLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 EVCDNLENFTSGSPFLCMDLSYTALLKDGFGPADSTVLQLTKKVNNIBTGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present amino acid esquence is the CDJ9.4.1 protein, an apyrace middle of the control of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New nucleic acid encoding human CD39-like protein, useful for treating and preventing thrombotic disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWPEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 2250; DB 21; Length 428; 100.0%; Pred. No. 2.9e-208; tive 0; Mismatches 0; Indels 0;
         /note= "Conserved motif in ATPDases"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 15; Fig 2; 125pp; English.
                                                                                                                                                                                                                                                                                            99US-0244444.
99US-0273447.
99US-0350836.
                                                                                                                                                                                99WO-US16180
                                                                                                                                                                                                                                      98US-0118205
                                                                                                                                                                                                                                                                      98US-0122449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSUB; AAZ50356, AAZ50359.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 100.0
Matches 428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI: 2000-182397/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ford J, Mulero J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  428 AA;
                                                                                                                                                                                                                                                                                                                                                                                                         (HYSE-) HYSEQ INC.
                                                                   WO200004041-A2,
                                                                                                                                                                                                                                                                                            04-FEB-1999;
11-MAR-1999;
09-JUL-1999;
                                                                                                                                                                                    16-JUL-1999;
                                                                                                                              27-JAN-2000.
                                                                                                                                                                                                                                           16-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
This invention relates to polymuclaotides encoding human CD39-like Aprile May are and for NoRses encityty. The polypepides having Aprase and for NoRses encityty. The polypepides having CATOPPD intuition Norses activity are useful for inhibiting platelate the function intuiting Norses activity are useful for inhibiting platelate to pathological conditions caused and inhibiting blatelat or congulation or excessive platelate aggregation than the properties of the confidence of intractation caused the part of the confidence as account of with venous thrombosis. CD3-14 and CD39-12 polypepides are cereby all conditions associated with Paper purineric signalling by confidence and appropriate and conditions associated with App or other purineric signalling by confidence and appropriate and appro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVBDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHUYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWYTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFBKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 SYLGFGIKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EVODNIENFTSGSPFI.CMDLSVITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EVCDNLENFTSGSPFLCMDLSXITALLKDGFGFADSTVLQLTKKVNNIETGMALGATFHL
                                                                                                                      Polymucleocides encodrig human 1039-like polypeptides, with apyrase and/or NDPage activity, which are useful in the treatment of aptibological conditions caused by thrombosis (e.g. myocardial infarction) and inflammatory disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 2250; DB 22; Length 428; Alarity 100.0%; Pred. No. 2.9e-208; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                               Example 9; Page 142-144; 203pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LQSLGISH 428
                                       2001-147489/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 428; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         428 AA;
                                                                 N-PSDB; AAF63402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EPCYAEVLRVVRGKLHQPEEVQRGSPYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ruman CD9-like protein; agyrase; NDPase; platelet function inhibitor; myocaetala infaction; ecebas is inamenia; angina averala thrombosis; corabral artery thrombosis; platelet aggregation; infammation; agoptees; attento corabral action of the content and appropriet; attento commune disorder; metro logical disorder; and associate; and associate; and a familiar and associate; and a familiar and 
                                                                                                                                                                                             1 MAISWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                           RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                              RIHVYTFVQKMPGQLPILEGBVFDSVKPGLSAFVDQPKQGAETVQGLLBVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                    KKTPVVLKATAGLR1LPEHKAKAL1FEVKEIPRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                       KKTPVVLKATAGLRLLPEHKAKALLFEVKEJFRKSPFLVPKGSVSIMDGSDEGILAWYTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NPLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NELTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLSQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 SYLGFGLKAARLATLGALETECTDGHTFRSACLPRWLEABWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL
                                                                                                                                            Gaps
                                                                                                                                                 ö
                                                                                       Length 428;
                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human CD39 like protein CD39-L4 amino acid sequence.
                                                                          100.0%; Score 2250; DB 22;
100.0%; Pred. No. 2.9e-208;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB72243 standard, Protein, 428 AA.
                                                                                                         al Similarity 100.0%;
428; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-JAN-2000; 2000US-0481238.
2S-AFR-2000; 2000US-0557800.
26-MAY-2000; 2000US-0583231.
30-JUN-2000; 2000US-06082851.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-AUG-2000; 2000WO-US21790.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0370265.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yeung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mulero JJ,
                          428 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOSLGISH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200110205-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0!'-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-FEB-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB72243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ford J,
                                                                                                             Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB72243
ID AAB7
XX
× S
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

120 180 180

09

ö

us-09-905-744b-6.rag

or chemokine-induced lung injury, inflammatory bowel disease or Crohn's disease. The present sequence is human CD39L4 protein.

888

```
AAE19883 standard, Protein, 428 AA.
                                                                                                                                                                         Example, Fig 7, 101pp, English.
                                                                                                           99US-0240639
                                                                                                                  99US-0240639
                                                                                                                                                                  sclerosis and osteoporosis
                      (first entry)
                                                                                                                                  Chadwick BP, Frischauf A;
                              Human CD39L4 protein.
                                                                                                                                          WPI; 2002-215262/27.
                                                                                                                           (HYSE-) HYSEQ INC.
                                                                                                                                              N-PSDB; AAD31695.
                                                                                    Homo sapiens.
                                                                                            US6350447-Bl,
                                                                                                           29-JAN-1999;
                                                                                                                  29-JAN-1999;
                      18-JUN-2002
                                                                                                   26-FEB-2002.
              AAE19883;
RESULT 4
   AR19883
```

```
Himman, CD-29-Like protein, CD2944 protein, thetasyy immune deficiency, autociamuse deficiency autociamuse disorder; multiple solerosis systemic lupus erytheastosus; printing and an interpretation activation activities are considered interpretation activation activities are present all desease osteoporosis; intential to dependent disbetee multitus; periodontal disease; osteoporosis; acteoarchiffitis; wound healing; its ser repair; platience is disease; ulterial present activities are repair; platience is disease; alterial avoid behalfing; its ser repair; platience is disease; alterial avoid behalfing; its ser repair; platience is disease; alterial avoid behalfing; its server lateral activities are present activities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nervous system disease, nerve injuy, ischaenia reperfusion injury, eedhaenia reperfusion injury, eedhaenia reperfusion injury, eedhoorin tehtality, arthritis, nephritis, inflammarovy bown disease, crohr si fisease, virucida, antibacteriai, antifungal, heuroproteesive, vulherary, noortopic, nationovulsant, antifinialmantory, nephrotropic, gastrointestinal, vasotropic.
```

An isolated polymeptide with phosphohydrolate activity, designated or 1915, useful to identify other proteins with which binding occurs ofdentify inhibitors and for treatment of, e.g., Alzheimer's, multiple

The present invention relates to movel proteins with phosphothydrolase control, designated of Dilly recognized and polymorlase actifity, designated of Dilly recognized and polymorlase decities diseases caused by the CODAT in CODAT in the present in the treatable with COD34. They are useful in the treatment of various my treatable with COD34. They are useful in the treatment of various my timming deficiencies and disorders, autoimmune disorders such a such manner of the Conditions the autoinmune and other repairatory problems, particular thy conditions and insulin dependent diabetes well-ture, allargic reactions thy only may have utility in compositions used for bone, cartilage, renden, clishener and other repairatory cartilage, renden, inclusions and other repairatory or regeneration as well as for wound hard in the cartilator regain and replacement and in the readment or burns, controlled and literatory or regeneration and inclusions and other repairatory or burns, and controlled in the cartilatory of the cartilatory of the cartilatory of the cartilatory of the cartilatory and the cartilatory of the cartilatory healing wounds, including pressure ulcers, ulcers associated with wiscular insufficiency and surgical and transacts wounds. They also exhibits anti-inflammatory activity and may be used to treet inflammatory corditions including enterior or acute conditions; including stehesman reperficient, and injury, endocoxin lethality, arthritis, imphritis, cycoxine. peripheral neuropathy and localised neuropathies. They are also used to treat mechanical and traumatic disorders which involve degeneration, death or trauma to neural cells or nerve tissue. CD39L proteins of the invention are also useful to promote better or faster closure of non-

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIPRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
                                                                                                                                                                                                                                                                                                 61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                              61 RIHVYTEVOKAMPGOLPILEGEVFDSVKPGLSAFVDOPKQGAETVOGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                     121 KKTPVVLKATAGLRLLPBHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 NFLTGOLHGHROETVGTLDLGGASTQITFLPOFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 SYLGFGLKAARLATIGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BPCYAEVLRVVRGKLHQPZEVQRGSFYARSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 BPCYARVLRVVRGKLHOPEBVORGSFYAFSYYYDRAVDTDWIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLOLIKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EVCDNLENFTSGSPPLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 NFLYGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                        1 MATSWGTVPFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                  1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                   Gaps
                                                                                                                   ö
                                                         Length 428;
                                                                                                              0; Indels
                                                     100.0%; Score 2250; DB 23;
100.0%; Pred. No. 2.9e-208;
                                                                                                                   0; Mismatches
                                                                                                                        Matches 428; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421 LOSLGISH 428
                                                                                      Local Similarity
428 AA;
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                         Query Match
```

윱 g 셤 셤 윱

à ò ò ò ð ò à AAY44850 standard; Protein; 428 AA. 18-MAY-2000 (first entry) AAY44850;

RESULT 5

à

Human CD39-14 variant-ACR III mutant protein.

COD3-44 human apprase nuclooxide dishospharase, NDR-86, variant;
APP highosphohydchlase, APP sesentent;
APP highosphohydchlase, APP sesentent;
Carebral segregation antithromhocus, thombodis and sesentent infarction;
Carebral segregation antithromhocus graff, serroroprosatial infarction;
Carebral segregation antithromhocus graff, serroroprosatial infarction;
malecular segion marker, much server segions and server segions.

'note= "Wild type Asp substituted with Thr" 'note= "Wild type Ser substituted with Gln" /note= "Wild type Leu substituted with Phe" drug targeting; substitution mutation. Location/Qualifiers Misc-difference 175 Misc-difference 168 Misc-difference Homo sapiens. Synthetic. 

WO200004041-A2

27-JAN-2000

```
This invention relates to polynucleotides encoding human CD3-like control for the properties of the polyner control for press and control for thin bitting plate at ATD properties and the polyner control for thin bitting plate at ATD properties and the polyner control for thin bitting plate at the control for thin bitting plate at the part of the public plate at the polyner properties are treatment of control for the plate at a great the properties are treatment of the plate at a different plate at the plate
                                                                                                                                                                                                                                                          Human CD39-11ke protein, appraes, NDRees, platelet function inhibitor, myocardial infraction, cerebral ischaema, angina, arterial infrombosis, cerebral artery thrombosis, platelet aggregation; inflammation; appoprosis, autoimmune disorder; muntological disorder; mutant, mutein, Alzheimer's disease, Parkinson's disease, cancer; CD35-LK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DPJPMUGLEGGGG excooring human 1039-11ke pulpygeptides, with apyrase analysis of Color NDPses activity, which are useful in the treatment of implication constead by thrombosis (e.g. myocardial interaction) and inflammatory disorders.
                                                                                                                                                                                                                    Human CD39 like protein CD39-L4 variant ACRIII amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 2235; DB 22; Length 428; Pred. No. 8.1e-207;
                                                                                     AAB72240 standard; Protein; 428 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 19; Fig 6; 203pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-AUG-1999; 99US-0370265.
11-JAN-2000; 2000US-0481238.
25-APR-2000; 2000US-0557800.
26-MAY-2000; 2000US-0563231.
30-JUN-2000; 2000US-0568285.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yeung G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-AUG-2000; 2000WO-US21790
                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ford J, Mulero JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-147489/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAF63385
                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200110205-A1
                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-FEB-2001.
                                                                                                                              AAB72240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                         RESULT 6
                                                                                     The present main oetic sequence is the CD3-4-twoiten, designated as APR III mitrant procefin, an apyrases and/or inclocité diphosphatese (WDPass). It is stollated from the human forbal liver-splace CD3 blattese, the soluble APR Diphospholydichases (APPass) and is blattesed, it is a soluble APR Diphospholydichases (APPass) and is involved in the hydrolysis of adenospine (APP), the agonist that causes platelet aggregation. CD3-L4 protein has 304 and 80 homology to human and mutrite CD3-1. It has justelet aggregation inhibition and antithrombocic activity. CD3-L4 is used to treat or prevent thromboois, myocatela infarction, creebbal ischemate and angina. It is also used in vitro, to maintain vascular grates or during extraoorporeal circulation, to hydrolyse NPD, as mobelular wells, missed to identify therapeutic agents that mutritional supplements. It is used to identify therapeutic agents that be him and medulate CD3-L4. It is completed to exam for targeting drugs to their other calls that express CD3-L4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 RIHVYTFVQRAPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAMVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAPVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09
                                                                                                                                                                                                                                                                                                                                               New nucleic acid encoding human CD39-like protein, useful for treating and preventing thrombotic disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MATSWGTVFFMLVVSCVCSAVSHRNOOTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMTGODEGIFAMVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 NFLIGGLHGHROETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLISFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EPCYAEVLRVVRGKLHQPBEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKVNNIBTGWALGATPHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.3%; Score 2235; DB 21; Length 428; 99.3%; Pred. No. 8.1e-207; cive 0; Mismatches 3; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                Claim 17; Fig 6; 125pp; English.
                                                      98US-0118205.
98US-0122449.
99US-0244444.
99US-0273447.
                    99WO-US16180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 425; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOSLGISH 428
                                                                                                                                                                                                                                                                                  WPI; 2000-182397/16.
                                                                                                                                                                                                                                        Mulero J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence 428 AA;
                                                                                                                                                                                            (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                      N-PSDB; AAZ50357.
                                                                              24-JUL-1998;
04-FEB-1999;
19-MAR-1999;
                    16-JUL-1999;
                                                                                                                                                   09-JUL-1999;
                                                          16-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                        Ford J,
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

```
The present amino acid sequence is the CD39-466 protein, a splice warfant of the CD39-44 protein. It is an apyrase and/or morlectice diphosphatuse (Mpase), inclated from the human focal 11 iver-splean CD31 library, baffac2004. It is a soluble ATP Diphosphotydrollsess (APTOSSES IS a Morlection to the Morlocy) the aponist that couses placelet aggregation. CD39-44 protein has 300 and 800 the monology to human and murite CD39-4. It has placelet aggregation inhibition and antithrombotic activity. CD39-44 is used to treat or prevent thromboosis, myocardial infaction, crebbal isselbens and angina. It is also used in vitro, to maintain vascular grafts or during extraocoporeal circulation, to hydrolyse ND9, as embodiate vascish markers and as mutritional supplements. It is used to identify therapeutic agents that the amonologid to toxins for targeting drugs to tuning strateging drugs to tuning sor other cells that express CD39-14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EPCYABULRUVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human CD9-like protein; agyrace; NDPses; platelet function inhibitor; myocaedial infarction; eerbral ischaemia; antimia areteral thrombosis; corobral artery thrombosis; platalet aggregation; inflammation; apprecal; artery chrombosis platalet aggregation; inflammation; apprecal; artery chrombosis plateder; moto objectal disorder; mucho objectal disorder; arteries disease; parkinson's disease; cancer; concer; construction.
     New nucleic acid encoding human CD39-like protein, useful for treating and preventing thrombotic disease -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MAISWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 KKTPVVLKATAGLRLLPBHKAKALLFBVKEIFRKSPFLVPKGSVSIMDGSDEGILAWYTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NPLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EVCDNLENFISGSPFLCMDLSYITALLKDGFGFADSTVLQ 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human CD39 like protein CD39-L4 amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                       93.5%; Score 2104; DB 21;
100.0%; Pred. No. 3.3e-194;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 15; Page 124-125; 125pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB72239 standard; Protein; 405 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 400; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                       405 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB72239;
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB7223
     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMTGQDEGIFAWVTV 180
                                                                                                                                                                                                                                                                                                                                                                                                    EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EVCDNIENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQLTKKYNNIETGWALGATPHL 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EVCDNLENFTSGSPFLCMDLSYIALLKDGFGFADSTVLQLTKKVNNIETGWALGATFHL 420
                                     9
                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0139-44; human, CO39-165; apyrates; mouleotide diphosphatea; NUPsee; APP Diptoshohydrolase; APPBase; adenosina diphosphatea; ADP, treatment-plated eggegation; antithrombodic; thromogosis mycearful infaction; oscebera! sichleamia; angina, vascular graft; extracopposal circulation molecular weight marker; mutritional supplement; tumour; prevention; drug targoting; splice variant.
                                  MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                         RIHVYTFVQKMPGQLPILEGEVPDSVKPGLSAFVDQPKQGASTVQGLLEVAKDSIPRSHW
                                                                                                                                       RIHVYTFVQKWPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW
                                                                                                                                                                                  KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                       NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSPEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                      NFLIGOLHGHRÖETVGTLDLGGASTQITFLPQPEKTLEQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                               SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                   BPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
  ö
3; Indels
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY44851 standard; Protein, 405 AA.
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0122449.
99US-0244444.
99US-0273447.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0118205.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US16180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0350836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
425; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human CD39-L66 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LQSLGISH 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-182397/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mulero J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOSLGISH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAZ50358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200004041-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HYSEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-JUL-1998:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-JAN-2000
                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ford J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HYSE-)
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                  8
                                                                                                          ò
                                                                                                                                                                                  à
                                                                                                                                                                                                                 යි
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

ö

Gaps ő 09 9

us-09-905-744b-6.rag

```
The present invention relates to novel proceins with phosphohydrolase activity, designated (0-3)-intellece (0-
                                                                                                                              301 BPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTOMIDYEKGGILKVEDFERKAR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              anteriamment disorder; multiple solenoise systemnic lupus entythematosus; thematod anteriamment disorder; multiple solenoise systemnic lupus entythematosus; thematod anterialise solenoise systemnic lupus entythematosus; insulin dependent diabetes mellitus; periodontal aliangia casection; asthematosis solenoise solenoise system diabetes melling; itsue repair; hillahematosis disease, ulice; parkinson; edisease, mayorcophil atteral soletosis; Huntington's disease, endorous system disease; pare injury; schemato are arepetus in figury; endorous in the superior system and profession; and the superior system of soletosis; formic disease; formic antibectus all antitional in meropropective; dermological, immunesuperessive; vulnerary; noorcopic; antitorous; sant infulling in meropropertive; dermological, immunesuperessive; vulnerary; noorcopic; antitorous; sant interface and antificile triphosphatase; antyme.
            241 SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLBAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse, CD-39-like protein; CD39L4 protein; therapy; immune deficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  An isolated polypoptical with phosphorydrolates activity, designated designated defaulty inhibitors and for treatment of, e.g., Alsheimer's, multiple sidentify subhibitors and for treatment of, e.g., Alsheimer's, multiple sidentify and osteopromosis
                                                                                    EPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                     EVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQ 400
                                                                                                                                                                                                                                                                                           EVCDNLENFTSGSPFLCMDLSXITALLKDGFGFADSTVLO 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAE19884 standard, Protein; 465 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example; Fig 1; 101pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0240639.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0240639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chadwick BP, Frischauf A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse CD39L4 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI: 2002-215262/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAD31696.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-FEB-2002.
                                                                                                                                                                                                                                     361
                                                                                                                                                      용
                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention relates to polynuclasticides encoding human (D39-like polypepite) and appease and civilby me polypepites having ATTOPPED CONTROLL AND ATTOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWTV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQTPRGYLTSFEMFNSTYKLYTH 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYLGEGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFEGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polymucleotides enceding human CD39-like polypeptides, with apyrase and/or NDPase activity, which are useful in the treatment of pathological conditions caused by thrombosis (e.g. mycardial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93.5%; Score 2104; DB 22; Length 405; 100.0%; Pred. No. 3.3e-194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Pred, NC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    infarction) and inflammatory disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 17; Page 157-158; 203pp; English.
                                                                                                                                                                                                                                                             11-JAN-2000; 2000US-0481238.
25-APR-2000; 2000US-0557800.
26-MAY-2000; 2000US-0583231.
                                                                                                                                                09-AUG-2000; 2000WO-US21790.
                                                                                                                                                                                                                               99US-0370265
                                                                                                                                                                                                                                                                                                                                                                                30-JUN-2000; 2000US-0608285.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 400; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-147489/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mulero JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    405 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAF63384
WO200110205-A1.
                                                                                                                                                                                                                               09-AUG-1999;
                                                                        15-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ford J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

à

g 8 셤 à

ò

œ

```
AAE19881 standard; Protein; 456 AA
      21-SEP-2000.
                                                                                                                           Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE19881
      8×4×4×4×4×4×4×4444×44×4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
disease, perfetiency disease, amyortophic tateral sciences. Huntingon's disease, perfetiency disease, amyortophic tateral sciences. Huntingon's disease, perfetiency amyorem diseases peripheral nervous private diseases peripheral nervous injunities, pertipheral nervous payerem diseases peripheral nervo injunities, peripheral nervo injunities, peripheral nervo injunities, peripheral nervopathy and localised neuropathies. They are also used to contain disease, which involve diseases action used to care mechanical and treamed insurant cases which involve diseases of non-healing women to act the contained and and action of the contained and and action of the contained and and action of acts associated with containing and action of acts of the contained and action of acts of the contained and action in the contained and action in the contained and actions and actions as the present sequence is mouse CD3514 protein, also known as underediscipled.
                                                                                                                                                                                                                                                                                                                                                                                                                      119
                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                        RIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQPKQGAETVQGLLEVAKDSIPRSHW 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    417
                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                            59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EVCDNLENFISGSPPELCMDLSYITALLKDGFGFADSTVLQLTKKVNNIETGWALGATPHL
                                                                                                                                                                                                                                                                                                                                                   1 MATSWGAV-FMLIIACVGSTVFYREQQTWFEGVFLSSMCPINVSAGTFYGIMFDAGSTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180 NFLTGQLHGRQQETVGTLDLGGASTQITFLPQFBKTLEOTPRGYLTSFBMFNSTFKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EVCDNLGSFSSGSPFLCMDLTYITALLKDGLGFAERHPLTAHKE-SEQHRDM-LGLGGHL
                                                                                                                                                                                                                                                                                                                              1 MATSWGTVFFMLVVSCVCSAVSHRNQQTWFBGIFLSSMCPINVSASTLYGIMFDAGSTGT
                                                                                                                                                                                                                                                                                                                                                                                                                      60 RIHVYTFVQKTAGQLPPLBGEIFDSVKPGLSAFVDQPKQGAETVQELLEVAKDSIPRSHW
                                                                                                                                                                                                                                                                                                                                                                                                                                                  KKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVPKGSVSIMDGSDEGILAWVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NFLTGQLHGHRQETVGTLDLGGASTQITFLPQFBKTLBQTPRGYLTSFEMFNSTYKLYTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEVGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SYLGFGLKAARLATLGALEAKGTDGHTFRSACLPRWLEAEWIFGGVKYQYGGNQEGEMGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTDMIDYEKGGILKVEDFERKAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                identification; oylocetic; acidocetic; acidocetic; unacoprocetic; rei vulnerary; inephrotropic, muscular; gynaecologicai; gastroineetinal; nephrotropic, antificative; antihoterial; gene threapy; wound; prephrotropic, antificative; antihoterial; gene threapy; wound; preproductive disorder; famune system disorder; muscular disorder; preproductive disorder; gastroineetinal disorder; renal disorder; canal disorder;
                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                    3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              colon cancer; colon cancer antigen; diagnosis; detection;
                                                                                                                                                                                                                                                                        DB 23; Length 465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human colon cancer antigen protein sequence SEQ ID NO:876.
                                                                                                                                                                                                                                                                                                    40; Indels
                                                                                                                                                                                                                                                                      81.4%; Score 1832.5; DB 2:
83.8%; Pred. No. 6.8e-168;
ive 25; Mismatches 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB53336 standard; Protein; 330 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-MAR-2001 (first entry)
                                                                                                                                                                                                                                                                                                  Matches 352; Conservative
                                                                                                                                                                                                                                                                                    Sest Local Similarity
                                                                                                                                                                                                                                          465 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -WO200055351-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB53336;
                                                                                                                                                                                                                                            Seguence
                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
    à
                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           업
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X2X5X5X555555X5X5X5X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
```

```
called human colon cancer attaigens, eiven in MaSS124 etc. MASS406c. The human colon cancer attigens can have ovicettic cardioactive, mentanged in metappropective, immunoachia roy, gynaecological, gestrointestinal metappropective, immunoachia roy, gynaecological, gestrointestinal attivities can be used in gene hereay. The colon cancer attigen polyunolecides proteins and antibodies to the proceins are useful for the prevention treatment and diagnosis of colon disorders, such as colon cancer. The polyunolecides may be used in diagnosis of colon disorders, and a scolon cancer. The polyunolecides may be used in diagnosis of colon disorders, such as for chromosome identification, and as Phytidiation probes. The proceins may also be used to prevent diseases such as neural disorders, immune gastrointestinal disorders, wounds, renal disorders, immune gastrointestinal disorders, wounds, renal disorders, infectious diseases and cardiovascular disorders. Acknowled to Anyloy or present equances used in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKTLEQT 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KGSVSIMDGSDEGILAWVIVNFLTGQLHGHRQETXGTLDLGGAXTQITFLPQFEKTLEQT 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETEGTDGHTFRSACLPRWLEAE 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTD 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MIDYBKGGILKVEDFERKAREVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQ 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243 MIDYEKGGILKVEDFERKAREVCDNLENFTSGSPFLCMDLSYITALLKDGFGFADSTVLQ 302
                                                                                                                                                                                                                                                                                                                                                                                                                                        Colon cancer associated gene sequences, referred to as colon cancer antigens, useful for the treatment, prevention, and diagnosis of colon disorders such as colon cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 ARAVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101 AETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSPFLVP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WIFGGVKYQYGXNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYYDRAVDTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAC97991 to AAC98763 encode the human colon cancer associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 330;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1660; DB 21;
Pred. No. 1.8e-151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; Page 1429-1431; 2104pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LTKKVNNIETGWALGATFHLLQSLGISH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LIKKVNNIETGWALGATFHLLQSLGISH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73.8%;
08-MAR-2000; 2000WO-US05883.
                                                                          99US-0124270.
                                                                                                                                                     (HUMA-) HUMAN GENOME SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 319; Conservative
                                                                                                                                                                                                                                      Ruben SM;
                                                                                                                                                                                                                                                                                                                 2000-587534/55.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             330 AA;
                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAC98093.
                                                                    12-MAR-1999;
```

62

AAE19881;

us-09-905-744b-6.rag

18-JUN-2002 (first entry)

Human CD39L2 protein.

Human; CD-99-1ke protein; CD99L protein; thesayy; Hamma-deficiency; autoimmute disorder; multiple solerosis; systemic lupus enythematoous; rhemmacoid arthritis; autoimmute thyroditis; allegic reaction; asthma; insulia defauled disease english perioditis; periodicatal disease exceptorasis; occerativitis; wound healing; tissue repair; Althelmer's disease uloca; perxistence factoris; functingous alleases inservous system disease; marvous englishis; fulleamistory booked disease; conforcin technique; antibacterial; antitungal; neuroprofective; Coohn si disease; Coohn si disease; conforcin antibacterial; antitungal; neuroprofective; dermatological; maniformulsant; antitungal; neuroprofective; antibacterial; antitungal; neuroprofective; antitulamistory booked disease; antitulamistory booked disease; antitulamistory booked disease; antitulamistory moreoposedive; antitulamistory booked disease; antitulamistory indiminantial multiconrulsant; antitulamistory; inspirate or general antitulamistory in the protein antitulamistory; antitulamistory in the protein antitulamistory in the protein antitulamistory in the protein antitulation antitulation antitulation antitulation and antitulation an An isolated polypeptide with phosphohydrolase activity, designated (D3912, useful to identify other proteins with which binding occurs or identify other proteins with which binding occurs or identify thistors and for treatment of, e.g., Alabeimer's, multiple Claim 1; Fig 4; 101pp; English. 99US-0240639 99US-0240639 sclerosis and osteoporosis Frischauf A; MPI; 2002-215262/27. (HYSE-) HYSEQ INC. N-PSDB, AAD31693. Chadwick BP, Homo sapiens. US6350447-B1 29-JAN-1999; 29-JAN-1999; 26-FEB-2002 

The present invention relates to novel proteins with phospholydrolase activity, designated CD-131. Proteins and and bolymuclastic designated CD-131. Proteins are useful to receive and and bolymuclastic designated CD-131. Proteins are useful to rest infection that may be seemed to the control of the contro exhibit anti-inflammatory activity and may be used to treat inflammatory conditions including chronic or acute conditions), including stehaema-repertation injury, andonoxin tehality arthritis, mephritis, orchementa repertation injury, andonoxin tehality arthritis, mephritis, orchement or chemokine-induced lung njury, inflammatory bowel disease or Crohn's disease. The present sequence is human 003912 protein. healing wounds, including pressure ulcers, ulcers associated with vascular insufficiency and surgical and traumatic wounds. They also

## 456 AA;

Query Match

Score 999; DB 23; Length 456;

62 PLGTAADGHEVPYGIMFDAGSTGTRVHVFOFT-RPPRETPTLTHETFRAVKPGLSAYADD 120 97 PKOGAETVOGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP 156 241 LQASPPGYLTALRMFNRTYXLYSYSYLGLGIMSARLAILGGVEGQPAKDGKELVSPCLSP 300 217 LEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTFRSACLPR 275 276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYDR 335 301 SFKGEWEHAEVTYRVSGOKAAASLHELCAARVSEVLQNRVHRTEEVKHVDFYAFSYYYDL 360 AVDIDMIDYEKGGILKVEDFERKAREVCDNLENFISGSPFLCMDLSYITALLKDGFGFAD 395 96 myocardial infarction, ecebral istachemia, ampina, arterial thrombosis; cerebral attery thrombosis, paleates aggregation, infaammation; apoptosis; autoricmure disporder; nacrological istorder; mancrological istorder; concer; conce Human CD39-like protein; apyrase; NDPase; platelet function inhibitor; 40 PINVSA---STLYGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQ 121 VEKSAGGIRELLDVAKODIPFDFWKATPLVLKATAGLRLLPGEKAGKLLOKVKEVFKASP 157 FLVPKGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT Gaps ; Pred. No. 2e-87; 56; Mismatches 123; Indels Human CD39 like protein CD39-L2 amino acid seguence. 424 420 SKVLKLTRKIDNVETSWALGAIFHYIDSL STVLQLTKKVNNIETGWALGATFHLLQSL Ź AAB72241 standard; Protein; 484 52.4%; 09-AUG-2000; 2000WO-US21790 99US-0370265 (first entry) 204; Conservative Best Local Similarity Matches 204; Conserv WO200110205-A1 Homo sapiens 09-AUG-1999; 14-MAY-2001 15-FEB-2001. AAB72241; 336 396 셤 ò 유 셤 ò 윱 셤 ò 윤 à ò

11-JAN-2000; 2000US-0481238. 26-MAY-2000; 2000US-0583231.

Yeung G; Ford J, Mulero JJ, (HYSE-) HYSEQ INC

WPI; 2001-147489/15 N-PSDB; AAF63386. Polymuciacotides emcoding Imman 1039-like objeptricles, with apyrase applicable objectivity, which are useful in the treatment of pathological conditions caused by thrombosis (e.g. myocardial pathological) and inflammatory disorders.

vasotropic; antiarteriosclerotic; antiinflammatory; dermatological;

```
This invention relates to polymucloctides encoding human CD99-like polypectides with agrees and over DPP seek activity. The polypectides having PD19-ppt-tides with agrees activity are best in the prophilytism or treatment of tentions and can therefore be used in the prophilytism or treatment of tentions and can therefore be used in the prophilytism or excessive computation excessive particular agreestable thrombosis or excessive actorism of the prophilytism or excessive actorism of the prophilytism of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disorders involving aspoins or systemic influence by response syndrome or STRS (turn secciated conditions such as fever, techyoadia, techyona, bytokine oversimilation), autoimmune disorders such as furncheosia, attherosod, respiration, attherosod, respiration, attherosod, respiration, and injury, atther man multiple sclerosia, arthritis, neurological disorders including neurodegenerative diseases, epilapsy, depression, Alzheimer's disease, spilapsy, depression, Alzheimer's disease, spilapsy, disease, and amyotrophic lateral, scherosis, and cancer. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            saguence represents human CD39 like protein CD39-L2
                                                 Claim 39; Page 162-164; 203pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               484 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence
```

```
208
                                                                                        97 PKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPBHKAKALLFEVKEIFRKSP 156
                                                                                                                                                                                                                                 FLVPKGSVSIMDGSDEGILAWVIVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT 216
                                                                                                                                                                                                                                                                                217 LEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTFRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                  276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVYRGKLHQPEEVQRGSFYAFSYYYDR 335
                                                                                                                                                                                                                                                                                                                                                                                   329 SFKGEWEHABVTYRVSGQKAAASLHELCAARVSEVLQNRVHRTEEVKHVDFYAFSYYYDL 388
                                                                       96
                                                                                                                                                                                                                                                                                                                                                                                                                       336 AVDTDMIDYEKGGILKVEDFERKAREVCDNLENFTSGSPFLCMDLSYITALLKDGFGFAD 395
                                                                    40 PINVSA---STLYGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQ
                                                                                                                                                            149 VEKSAQGIRELLDVAKQDIPFDFWKATPLVLKATAGLRLLPGEKAQKLLQKVKEVFKASP
                                   Gaps
                                   9
44.4%; Score 999; DB 22; Length 484; 52.4%; Pred. No. 2.2e-87;
                                 56; Mismatches 123; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448 SXVLKLTRKIDNVETSWALGAIFHYIDSL 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STVLQLTKKVNNIETGWALGATFHLLQSL 424
                   Best Local Similarity 52.44
Matches 204; Conservative
                Local Similarity
                                                                                                                                                                                                              157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         396
Query Match
                                                                    ò
                                                                                                   셤
                                                                                                                                         ò
                                                                                                                                                                       셤
                                                                                                                                                                                                              à
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
Human, cytostatic, osteopathic, gynaecological, neuroprotective; antirheumatic, antiarthritic, antipsoriatic, ophthalmological, anti-HIV,
                                                                                                                        Human NS protein sequence SEQ ID NO:216.
                          ABB06124 standard; Protein; 463 AA
                                                                                       (first entry)
                                                                                         10-MAY-2002
                                                            ABB06124;
RESULT 13
              ABB06124
                                           XXXXXXXXXXXXX
```

157 FLVPKGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT 216

à

control to the state of the sta anorectic musular antinterility catdoneollar anticogulant; 69 PLGTAADGHEVFYGIMFDAGSTGTRVHVFQFT-RPPRETPILTHETFKALKPGLSAYADD 127 128 VEKSAGGIRELLDVAKQDIPPDFWKATPLVLKATAGLRLLPGEKAQKLLQKVKEVFKASP 187 97 PKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP 156 40 PINVSA---STLYGIMFDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQ 96 ischaemia; asthma; immune disease; epilepsy; angina; neurodegeneration; diabenes; amxiety; depression; schizophrenia; viral disease; stroke; gastric ulocr; Alzhahmer's disease. One hundred and twenty eight novel nucleic acid sequences, useful for treating and diagnosing e.g. cancer, asthma and Alzheimer's Gaps ABL39691 to ABL39818 represent novel human nucleic acid sequences 9 44.3%; Score 996; DB 23; Length 463; 52.2%; Pred. No. 4e-87; ive 57; Mismatches 123; Indels Claim 6, Page 251-253; 290pp; English. Bernstein J; 17-JUL-2001, 2001WO-IL00653. 18-JUL-2000; 2000IL-0137345. Best Local Similarity 52.23 Matches 203; Conservative Freilich S, (COMP-) COMPUGEN LTD. WPI; 2002-155037/20. 463 AA; N-PSDB; ABL39778 WO200206315-A2 Homo sapiens. 24-JAN-2002. Mintz L, Seguence Query Match g ò ò 윱

용 à 윱 à g à

à

```
The invention ralters to an isolated polypeptide, designated NUX.

The invention ralters to an isolated polypeptide, designated NUX.

Expectable. It a smoother polymerleading an atthiody created from the protein is useful in the manufacture of a medicament for treating a sprotein is useful in the manufacture of a medicament for treating a confidence associated with a human disease preferably a NUX. associated disorder in a cubble confidence, preferably a NUX. associated disorder in a cubble confidence or an atthiody created from the protein are encoding for treating or preventing metabolic disorder. Altheimer's floated protein is expected and the protein are also useful for treating or preventing metabolic disorders, disorder, Altheimer's chieckers, the metabolic disorders, disorder, and the protein are protein associated with confidence or an atthiody created from the protein are also useful for the protein and anothers associated with confidence or an atthiody or the acting disorder associated with confidence or an atthiody or the acting disorder associated with confidence or an atthiody or the acting disorder associated with confidence or an atthiody or the acting disorder associated with confidence or research interesting or preventing metabolic disorders and a service filterial confidence or vesicular transport enth as cyclic filterial services in coluding Allo, allergic reactions, multiple solerosis and rheumatoid arthritis. A cell complising the vector of the invention is the presents on a be used to treat disorders by gane thereby. The sequence inventor or the invention on the used to treat disorders by gane thereby. The represents one of the isolated by agreet thereby.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                217 LEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTFRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97 PKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    276 WLEAEWIFGGUKYQYGGUQEGEUGFEPCYAEVLRUVRGKLHQPEEUQRGSFYAFSYYDR 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     312 SPKGEWEHAEVTYRVSGOKAAASIHELCAARVSEVLQNRVHRTEEVKHVDFYAFSYYYDL 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           336 AVDTDMIDYEKGGILKVEDFERKAREVCDNLENFISGSPFLCMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 372 AAGVGLIDAEKGGSLVVGDFEIAAKYVCRILETQPQSSPFSCMDLTYVSLLLQE-FGFPR 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40 PINVSA---STLYGIMPDAGSTGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQ 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FLVPKGSVSIMDGSDEGILAWVTVNFLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                preventing cancer, diabetes, obesity, dyslipidemia, anorexia, and
                                                neurodegenerative, immune and hematopoietic disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44.3%; Score 996; DB 23; Length 467;
52.2%; Pred. No. 4e-87;
ive 57; Mismatches 123; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            396 STVLQLTKKVNNIETGWALGATFHLLQSL 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       431 SKVLKLTRKIDNVETSWALGAIFHYIDSL
                                                                                                                Page 140; 421pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAM93929 standard; Protein; 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches .203; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         467 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAM93929;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAM93929
                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ရှ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
LEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTFRSACLPR 275
                                                                                                                                                            276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPBEVQRGSFYAFSYYDR 335
                                                                                                                                                                                                                                                                                             336 AVDTOMIDYEKGGILKVEDFERKAREVÇDNLENPTSGSPFLCMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                         368 AAGVGLIDAEKGGSLVVGDFEIAAKYVCRTLETQPQSSPFSCMDLTYVSLLLQE-PGFPR 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         neauroprotective, antipatkineanian, anticomvalant, seeboportective, tranggliaer, neuroleptic; antichabetic; antichabetic; antitulcer; neuroleptic; antichabetic; antitulcer; neuroleptic; antichabetic; antitulcer; antitulcer; antitulcer; antitulcer; antitulcer; antitulcer; allabeta; metabolic disorder; obesity; infectious disorder; placeae; Altheimer's disorder; and anorexia; neuroleptic; obesity; immune disorder; antitulcer; and seconder; obesity; immune disorder; antitulcer; antitu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytostatic; antidiabetic; anorectic; metabolic; nootropic; antilipaemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Casman SJ, Malyankar UM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Li L, Patturajan M, Shimkets RR, Casman SJ, Malyankar UM, Yu Yuenfe CM, Syptek KR, Shenyo SG, Mabobrook UP; S, Peyman JA, Stone DJ, Ellerman K, Gangollii EA; FL, Colman SD, Eisen AJ, Liu X, Padigaru M, Spaderna SK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel isolated polypeptide, designated NOVX, useful for treating or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diabetes mellitus, ulcerative colitis, AIDS, allergic reaction; multiple sclerosis; rheumatoid arthritis; transgentc animal; mene that app.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ||:||:|::|:|| ||| || || SKVLKLTRKIDNVETSWALGAIFHYIDSL 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABJ04657 standard; Protein; 467 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein of NOVX 15a SEQ ID No 36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-255029P.
2001US-260326P.
2001US-263800P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-269942P.
2001US-286183P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-DEC-2001; 2001WO-US46586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-251660P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-313627P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-318712P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-OCT-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Guo A, Toherner Vr. Vernet Colleger S, Peyman JA, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-547774/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; ABT05470.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200246409-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-JAN-2001;
24-JAN-2001;
20-FEB-2001;
24-APR-2001;
20-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unidentified,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-JUN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABJ04657;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABJ04657
```

```
396 STVLQLTKKVNNIETGWALGATFHLLQSL 424
                                                                                                                                                      completed: November 13, 2003, 06:18:31
                                                                                                                                                      Search completed: 1
Job time : 51 secs
                                                          셤
    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to primers for surphessing thill length cDNA dlones. 810 cDNA molecules encoding a human protein have been discolated and nucleotide sequences of 5-and 3-and of these DNA molecules have been determined. Primers for synthesisting the full length molecules have been determined. Primers for synthesisting the full length the CDNA. The full length clones were obtained by construction of full length enriched CDNA interface that were synthesisted by the oliquocapping without any special methods: The present sequence is a polypeptide more of the production of the full length cDNA easily second by a full length human CDNA of the invention.

Note: The sequence date for this patent did not from part of the printed specification, but was obtained in CD-ROM storms of the printed specification, but was obtained in CD-ROM storms of the printed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 PLGTAADGHBVFYGIMFDAGSTGTRVHVPQFT-RPPRETFTLTHETFKALKDGLSAYADD 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PINVSA---STLYGIMFDAGSIGTRIHVYTFVQKMPGQLPILEGEVFDSVKPGLSAFVDQ 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97 PKQGAETVQGLLEVAKDSIPRSHWKKTPVVLKATAGLRLLPEHKAKALLFEVKEIFRKSP 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      157 FLVPKGSVSIMDGSDEGILAWTVNPLTGQLHGHRQETVGTLDLGGASTQITFLPQFEKT 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           217 LEQTPRGYLTSFEMFNSTYKLYTHSYLGFGLKAARLATLGALETE-GTDGHTPRSACLPR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                276 WLEAEWIFGGVKYQYGGNQEGEVGFEPCYAEVLRVVRGKLHQPEEVQRGSFYAFSYYDR 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   336 AVDIDMIDXEKGGILKVEDFERKAREVCDNLENFISGSPFLCMDLSYITALLKDGFGFAD 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  830 Primers useful for synthesizing full length cDNA clones and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ota T, Nishikawa T, Isogai T, Hayashi K, Ishii S, Kawai Y;
Wakamatsu A, Sugiyama T, Nagai K, Kojima S, Otsuki T, Koga H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Owery Match
44.1%; Score 992; DB 22; Length 456;
Best Local Similarity 51.9%; Pred. No. 9.56-87;
Matches 202; Conservative 57; Mismarches 124; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 8; SEQ ID NO 4100; 1380pp + sequence listing; English.
                                                                             Human; full length cDNA; cDNA synthesis; oligo-capping.
                   Human polypeptide, SEQ ID NO: 4100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use in genetic manipulation -
                                                                                                                                                                                                                                                                                                                                                                                     08-JUL-1999; 99JP-0194486.
11-JAN-2000; 2000JP-0118774.
02-MAY-2000; 2000JF-0183765.
                                                                                                                                                                                                                                                                                                                           07-JUL-2000; 2000EP-0114089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HELI-) HELIX RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-524255/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            456 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAK94892
                                                                                                                                                                                                  3P1130094-A2
                                                                                                                                                                                                                                                                 05-SEP-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
```

셤 셤

ò ò ò 셤 à à

윱 셤